

# DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

### NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208 Miami, Florida 33175-2474 T (786)315-2590 F (786) 31525-99

www.miamidade.gov/economy

#### **GAF**

1 Campus Drive Parsippany, NJ 07054

#### SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

#### **DESCRIPTION:** GAF Ruberoid® Modified Bitumen Roof Systems for Concrete Decks.

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA renews and revises NOA No. 14-0905.01 and consists of pages 1 through 43. The submitted documentation was reviewed by Jorge L. Acebo.



And the

NOA No.: 15-0129.20 Expiration Date: 11/06/15 Approval Date: 04/16/15 Page 1 of 43

# **ROOFING SYSTEM APPROVAL**

**Category:** Roofing

Sub-Category: Modified Bitumen

**Material:** APP/SBS Deck Type: Concrete Maximum Design Pressure: -495 psf.

# TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT: TABLE 1

ProductDimensionSpecificationPoescriptionGAFGLAS® Ply 439.37"ASTM D2178Type IV asphalt impregnated glass felt with asphalt coating.Tri-Ply® Ply 439.37"ASTM D2178Type IV asphalt impregnated glass felt with asphalt coating.GAFGLAS® FlexPly™639.37"ASTM D2178Type IV asphalt impregnated glass felt with asphalt coating.GAFGLAS® #75 Base Sheet39.37"ASTM D2101Type II, Asphalt impregnated glass felt with asphalt coating.Tri-Ply® #75 Base Sheet39.37"ASTM D4601Type II, Asphalt impregnated and coated glass mat base sheet.GAFGLAS® #80 Ultima™ Base Sheet39.37"ASTM D4601Type II, Asphalt impregnated and coated glass mat base sheet.Weather Watch® XT36" x 50" rolls as x 66.7"ASTM D4601Type II, Asphalt impregnated and coated flass mat base sheet.GAFGLAS® Stratavent® Asphalt material for a size a leak barrier underlayment.ASTM D4601Type II, Asphalt impregnated and coated flow fiberglass base sheet.GAFGLAS® Stratavent® Conting Base Sheet39.37"ASTM D4801Fiberglass base sheet.GAFGLAS® Stratavent® Conting Base Sheet39.37"ASTM D4801Fiberglass base sheet coated on both sides with asphalt. Surfaced on the bottom side with mineral granules embedded in asphaltic coating.GAFGLAS® Mineral Surfaced coated on Sheet39.37"ASTM D4801Asphalt coated, glass fiber mat cap sheet surfaced with mineral granules.GAFGLAS® Mineral Surfaced coated on Sheet39.37"ASTM D4801Asphalt coated, glass fiber mat cap sheet surfaced with mineral granules.GAFGLAS® EnergyCap™ Blow			Test	Product
TriPly® Ply 4  TriPly® Ply 4  GAFGLAS® FlexPly™ 6  GAFGLAS® #75 Base Sheet  GAFGLAS® #75 Base Sheet  TriPly® #75 Base Sheet  GAFGLAS® #80 Ultima™ Base Sheet  GAFGLAS® #80 Ultima™ Base Sheet  Weather Watch® XT  Tolls  GAFGLAS® Stratavent®  Eliminator™ Perforated  Venting Base Sheet  GAFGLAS® Mineral Surfaced Cap Sheet  TriPly® Mineral Surfaced Cap Sheet  GAFGLAS® Mineral Surfaced Cap Sheet  TriPly® Mineral Surfaced Cap Sheet  GAFGLAS® BenergyCap™ BUR  Mineral Surface Cap Sheet  Ruberoid® SBS Heat-Weld™ 2  Ruberoid® SBS Heat-Weld™ 2  Ruberoid® SBS Heat-Weld™ 2  Ruberoid® SBS Heat-Weld™ 4  Ruberoid® SBS Heat-Weld™ 5  Ruberoid® SBS Heat-Weld™ 6  I meter  ASTM D6164 Non-Woven Polyester mat coated with polymer modified asphalt and surfaced with polymer		<b>Dimensions</b>	<b>Specification</b>	<b>Description</b>
Tri-Ply® Ply4 (1 meter) Wide 39.37" (1 meter) Wide 50 (1 meter) Wide 49.37" (1 meter) Wide 50 (1 me	GAFGLAS® Ply 4	39.37"	<b>ASTM D2178</b>	Type IV asphalt impregnated glass felt with
GAFGLAS® FlexPly™ 6 GAFGLAS® #75 Base Sheet Tri-Ply® #75 Base Sheet GAFGLAS® #80 Ultima™ Base Sheet Weather Watch® XT GAFGLAS® \$\text{8}\$ With mineral granules GAFGLAS® \$\text{8}\$ Stratavent® Eliminator™ Perforated Venting Base Sheet GAFGLAS® Stratavent® Eliminator™ Perforated Neilminator™ Perforated Nailable Venting Base Sheet GAFGLAS® Mineral Surfaced Cap Sheet Mineral Surfaced Cap Sheet GAFGLAS® EnergyCap™ BUR Mineral Surfaced Cap Sheet Mineral Surface Cap Sheet Ruberoid® \$BS Heat-Weld™  Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™ Ruberoid® \$BS Heat-Weld™				
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Tri-Ply® #75 Base Sheet  Tri-Ply® #75 Base Sheet  GAFGLAS® #80 Ultima™ Base Sheet  Sheet  Weather Watch® XT  GAFGLAS® Stratavent®  Eliminator™ Perforated  Venting Base Sheet  ASTM D4897  ASTM D4897  ASTM D4897  ASTM D4897  Astalable, fiberglass base sheet coated on both sides with asphalt. Surfaced on the bottom side with mineral granules embedded in asphaltic coating with factory perforations.  ASTM D4897  ASTM D4897  ASTM D4897  Astalable, fiberglass base sheet.  ASTM D4897  Astalable, fiberglass base sheet.  ASTM D4897  Astalable, fiberglass base sheet.  Astalable, fiberglass base sheet.  Astalable, Surfaced on both sides with asphalt. Surfaced on the bottom side with mineral granules embedded in asphaltic coating with factory perforations.  ASTM D4897  Astalable, fiberglass base sheet.  Astalable, Surfaced on both sides  with asphalt. Surfaced on the bottom side with mineral granules embedded in asphaltic coating.  ASTM D4897  Astalable, fiberglass base sheet.  Astalable, fiberglass fiber mat cap sheet surfaced with mineral granules.  Astalable, fiberglass fiber mat cap sheet surfaced with mineral granules.				
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Cap Sheet (1 meter) Wide Tri-Ply® Mineral Surfaced Cap Sheet (39.37" ASTM D3909 Asphalt coated, glass fiber mat cap sheet Sheet (1 meter) Wide GAFGLAS® EnergyCap™ BUR Mineral Surface Cap Sheet (1 meter) Wide Mineral Surface Cap Sheet (1 meter) Wide Ruberoid® SBS Heat-Weld™ 25 Ruberoid® SBS Heat-Weld™ 25 Ruberoid® SBS Heat-Weld™ (39.37") Wide	-			embedded in asphaltic coating.
Tri-Ply® Mineral Surfaced Cap Sheet (1 meter) Wide GAFGLAS® EnergyCap™ BUR Mineral Surface Cap Sheet Mineral Surface Cap Sheet (1 meter) Wide GAFGLAS® EnergyCap™ BUR Mineral Surface Cap Sheet Mineral Surface Cap Sheet  Mineral Surface Cap Sheet (1 meter) Wide SBS Heat-Weld™ 25  I meter (39.37") Wide Ruberoid® SBS Heat-Weld™ Smooth  Mon-Woven Polyester mat coated with polymer modified asphalt and smooth surfaced.  Ruberoid® SBS Heat-Weld™  ASTM D6164  ASTM D6164  Non-Woven Polyester mat coated with polymer modified asphalt and surfaced with		39.37"	ASTM D3909	
Sheet GAFGLAS® EnergyCap™ BUR Mineral Surface Cap Sheet Mineral Surface Cap Sheet  Ruberoid® SBS Heat-Weld™ 25 Ruberoid® SBS Heat-Weld™ Smooth  Ruberoid® SBS Heat-Weld™  ASTM D6163  ASTM D6163  ASTM D6164  Non-Woven Polyester mat coated with polymer modified asphalt and smooth surfaced.  Ruberoid® SBS Heat-Weld™  1 meter (39.37") Wide  ASTM D6164  ASTM D6164  Non-Woven Polyester mat coated with polymer modified asphalt and surfaced with polymer modified asphalt and surfaced with polymer modified asphalt and surfaced with	*			
GAFGLAS® EnergyCap™ BUR Mineral Surface Cap Sheet (1 meter) Wide Ruberoid® SBS Heat-Weld™ 25 Ruberoid® SBS Heat-Weld™ 25 I meter Smooth (39.37") Wide Ruberoid® SBS Heat-Weld™ 1 meter Smooth (39.37") Wide Ruberoid® SBS Heat-Weld™ 1 meter Smooth (39.37") Wide Ruberoid® SBS Heat-Weld™ 1 meter (39.37") Wide R	-		ASTM D3909	
Mineral Surface Cap Sheet (1 meter) Wide surfaced with mineral granules with factory applied EnergyCote™  Ruberoid® SBS Heat-Weld™ 25 1 meter (39.37") Wide Ruberoid® SBS Heat-Weld™ 1 meter Smooth (39.37") Wide Ruberoid® SBS Heat-Weld™ 1 meter (39.37") Wide Ruberoid® SBS Heat-Weld™ 25 Non-Woven Polyester mat coated with polymer modified asphalt and surfaced with				<u> </u>
Ruberoid® SBS Heat-Weld™ 25 Ruberoid® SBS Heat-Weld™ 25 Ruberoid® SBS Heat-Weld™ 25 Ruberoid® SBS Heat-Weld™ 1 meter Smooth (39.37") Wide Ruberoid® SBS Heat-Weld™ 1 meter Smooth (39.37") Wide Ruberoid® SBS Heat-Weld™ 1 meter Smooth (39.37") Wide Ruberoid® SBS Heat-Weld™ 1 meter Smooth Surfaced. Ruberoid® SBS Heat-Weld™ 1 meter Smooth Surfaced.  ASTM D6164 ASTM D6164 Non-Woven Polyester mat coated with polymer modified asphalt and surfaced with polymer modified asphalt and surfaced with	<b>6.</b> 1		ASTM D3909	•
Ruberoid® SBS Heat-Weld™ 25 Ruberoid® SBS Heat-Weld™ 25 Ruberoid® SBS Heat-Weld™ 1 meter (39.37") Wide Ruberoid® SBS Heat-Weld™ (39.37") Wide Ruberoid® SBS Heat-Weld™ (39.37") Wide Ruberoid® SBS Heat-Weld™ 1 meter (39.37") Wide	Mineral Surface Cap Sheet	(1 meter) Wide		
Ruberoid® SBS Heat-Weld™ Smooth Ruberoid® SBS Heat-Weld™ Smooth Ruberoid® SBS Heat-Weld™  Ruberoid® SBS Heat-Weld™  Ruberoid® SBS Heat-Weld™  Ruberoid® SBS Heat-Weld™  1 meter ASTM D6164 ASTM D6164 Non-Woven Polyester mat coated with surfaced.  Non-Woven Polyester mat coated with polymer modified asphalt and surfaced with polymer modified asphalt and surfaced with	D 1 10 CDC 11 11M 0.5		1 CT 1 D (1 C2	
Ruberoid® SBS Heat-Weld™ Smooth (39.37") Wide Ruberoid® SBS Heat-Weld™ Ruberoid® SBS Heat-Weld™  Ruberoid® SBS Heat-Weld™  Ruberoid® SBS Heat-Weld™  (39.37") Wide  ASTM D6164  ASTM D6164  Non-Woven Polyester mat coated with polymer modified asphalt and surfaced with polymer modified asphalt and surfaced with	Ruberoid SBS Heat-Weld 25		ASTM D6163	
Smooth (39.37") Wide polymer modified asphalt and smooth surfaced.  Ruberoid® SBS Heat-Weld™ 1 meter ASTM D6164 Non-Woven Polyester mat coated with polymer modified asphalt and surfaced with	D 1 1 1 R CDC II 4 W 1 1 TM		ACTM DOLOM	· ·
Ruberoid <sup>®</sup> SBS Heat-Weld <sup>™</sup> 1 meter ASTM D6164 Non-Woven Polyester mat coated with granule (39.37") Wide surfaced.  Non-Woven Polyester mat coated with polymer modified asphalt and surfaced with			ASTM D6164	
Ruberoid® SBS Heat-Weld <sup>™</sup> 1 meter ASTM D6164 Non-Woven Polyester mat coated with Granule (39.37") Wide polymer modified asphalt and surfaced with	Sinootii	(39.37) wide		
Granule (39.37") Wide polymer modified asphalt and surfaced with	Ruberoid® SRS Heat Weld™	1 matar	<b>ASTM D616</b> 4	
` , , , , , , , , , , , , , , , , , , ,			A51W1 D0104	
mineral granules	Similar	(57.57 ) Wide		mineral granules.



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		Test	Product
<b>Product</b>	<b>Dimensions</b>	<b>Specification</b>	<b>Description</b>
Ruberoid® SBS Heat-Weld™	1 meter	ASTM D6164	Non-Woven Polyester mat coated with fire
170 FR	(39.37") Wide		retardant polymer modified asphalt and
			surfaced with mineral granules.
Ruberoid <sup>®</sup> SBS Heat-Weld <sup>™</sup>	1 meter	ASTM D6164	Non-Woven Polyester mat coated with
Plus	(39.37") Wide		polymer modified asphalt and surfaced with
D. 1. 1.10 CDC II W. LITM	20.270	A CTD 4 D 61 64	mineral granules.
Ruberoid® SBS Heat-Weld™	39.37"	ASTM D6164	9
Plus FR	(1 meter) Wide		retardant polymer modified asphalt and
Ruberoid® EnergyCap™ SBS	39.37"	ASTM D6164	surfaced with mineral granules. Non-Woven Polyester mat coated with fire
Heat-Weld <sup>™</sup> Plus FR	(1 meter) Wide	ASTM D0104	retardant polymer modified asphalt and
Ticat-weid TiusTik	(1 meter) wide		surfaced with mineral granules and with
			factory applied EnergyCote.
Ruberoid® Torch Smooth	39.37"	<b>ASTM D6222</b>	
	(1 meter) Wide		modified asphalt and smooth surfaced.
Tri-Ply® TP-4	39.37"	ASTM D6222	Non-Woven Polyester mat coated with APP
	(1 meter) Wide		modified asphalt and smooth surfaced.
Ruberoid® Torch	39.37"	ASTM D6222	Non-Woven Polyester mat coated with APP
Granule	(1 meter) Wide		modified asphalt and surfaced with mineral
D 1 19 T 1 100	20.270	4 CT 4 D (222	granules.
Ruberoid® Torch 180	39.37"	ASTM D6222	Non-Woven Polyester mat coated with APP
	(1 meter) Wide		modified asphalt and surfaced with mineral
Tri-Ply® TP-4G	39.37"	A STM D6222	granules. Non-Woven Polyester mat coated with APP
111-11y 11-40	(1 meter) Wide	ASTNI DOZZZ	modified asphalt and surfaced with mineral
	(1 meter) wide		granules.
Ruberoid® Torch FR	39.37"	ASTM D6222	Non-Woven polyester mat coated with fire
	(1 meter) Wide		retardant polymer modified asphalt
	,		surfaced with mineral granules.
Ruberoid® EnergyCap™	39.37"	ASTM D6222	APP modified cap membrane with a torch
Torch Plus FR	(1 meter) Wide		grade bottom surface and a mineral
			granular top surface coated with factory
D 1 10 D G TM	20.25	4 GTD 4 D 4000	applied EnergyCote <sup>™</sup> .
Ruberoid <sup>®</sup> EnergyCap <sup>™</sup>	39.37"	ASTM D6222	APP modified cap membrane with a torch
Torch Granule FR	(1 meter) Wide		grade bottom surface and a mineral
			granular top surface coated with factory applied EnergyCote <sup>™</sup> .
Ruberoid® 20	39.37"	ASTM D6163	SBS modified asphalt base sheet reinforce
Ruberold 20	(1 meter) Wide	7151W1 D0105	with a glass fiber mat.
Ruberoid® 30	39.37"	ASTM D6163	
1140 01014	(1 meter) Wide	1101111 20102	polymer modified asphalt and surfaced with
	,		mineral granules.
Ruberoid® 30 FR	39.37"	<b>ASTM D6163</b>	Non-Woven fiberglass mat coated with fire
	(1 meter) Wide		retardant, polymer modified asphalt and
			surfaced with mineral granules.
Ruberoid® Mop Granule	39.37"	ASTM D6164	Non-Woven polyester mat coated with
	(1 meter) Wide		polymer modified asphalt and surfaced with
			mineral granules.



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		Test	Product
<b>Product</b>	<b>Dimensions</b>	<b>Specification</b>	<b>Description</b>
Tri-Ply® SBS Modified	39.37"	ASTM D6164	Non-woven polyester mat coated with
Bitumen Membrane	(1 meter) Wide		polymer modified asphalt and surfaced with
			mineral granules.
Intec Flex PRF	39.37"	ASTM D6164	Non-woven polyester mat coated with
	(1 meter) Wide		polymer modified asphalt and surfaced with
	20.27n	A COTA D C1 C4	mineral granules.
Ruberoid® Mop Smooth	39.37"	ASTM D6164	Non-Woven polyester mat coated with
	(1 meter) Wide		polymer-modified asphalt and smooth surfaced.
Ruberoid® Mop Smooth 1.5	39.37"	ASTM D6164	Non-Woven polyester mat coated with
Ruberold Wop Sillooth 1.5	(1 meter) Wide	ASTM D0104	polymer-modified asphalt and smooth
	(1 meter) wide		surfaced.
Ruberoid® Mop Plus Smooth	39.37"	ASTM D6164	Non-Woven polyester mat coated with
The contract of the contract o	(1 meter) Wide		polymer-modified asphalt and smooth
	,		surfaced.
Ruberoid® Mop Plus	39.37"	<b>ASTM D6164</b>	Non-woven polyester mat coated with
	(1 meter) Wide		polymer modified asphalt and surfaced with
			mineral granules.
Ruberoid® Mop FR	39.37"	ASTM D6164	Non-Woven Polyester mat coated with fire
	(1 meter) Wide		retardant polymer modified asphalt and
	20.250	A CTD 4 D 61 64	surfaced with mineral granules.
Ruberoid <sup>®</sup> EnergyCap <sup>™</sup> Mop	39.37"	ASTM D6164	<b>3</b>
FR	(1 meter) Wide		retardant, polymer modified asphalt and surfaced with mineral granules and with
			factory applied EnergyCote <sup>™</sup> .
Ruberoid® Mop 170 FR	39.37"	ASTM D6164	Non-Woven polyester mat coated with fire
reactoral trop 170 110	(1 meter) Wide	1151111 20101	retardant polymer modified asphalt and
	(======================================		surfaced with mineral granules.
Ruberoid <sup>®</sup> EnergyCap <sup>™</sup> 30 FR	39.37"	<b>ASTM D6163</b>	Non-woven fiberglass mat coated with fire
SBS Membrane	(1 meter) Wide		retardant, polymer modified asphalt and
			surfaced with mineral granules and with
TM			factory applied EnergyCote <sup>™</sup> .
Matrix <sup>™</sup> 102 SBS Membrane	5 gallons	ASTM D3019	Cold Applied Modified SEBS Asphalt
Adhesive	1 F am F F	ACTM DC002	Adhesive.
Topcoat <sup>®</sup> Elastomeric Roofing Membrane	1,5 or 55 gallons	ASTM D0083	An acrylic, water based elastomeric membrane system used to protect various
Wembrane	ganons		types of roofing surfaces.
Topcoat® MB Plus	5 or 55 gallons	Proprietary	Water based, low VOC primer used to
ropeout will rus	o or oo garrons	rroprictary	block asphalt bleed-through.
Topcoat <sup>®</sup>	5 gallons	<b>ASTM D6083</b>	Solvent based sprayable thermoplastic
Surface Seal SB	· ·		rubber sealant used to protect and restore
			aged roof surfaces and to increase a roof's
			reflectivity.
Matrix <sup>™</sup> 307 Premium Asphalt	3, 5, 55	ASTM D41	Asphalt concrete primer used to promote
Primer	gallons		adhesion of asphalt in built-up roofing.



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# **APPROVED INSULATIONS:**

<b>TABLE</b>	2
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<b>Product Name</b>	Product Description	Manufacturer (With Current NOA)
EnergyGuard <sup>™</sup> Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard <sup>™</sup> Tapered Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard™ RA Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard <sup>™</sup> RH Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard <sup>™</sup> RN Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard <sup>™</sup> Composite Polyiso Insulation	Polyisocyanurate/wood fiberboard or perlite composite	GAF
EnergyGuard <sup>™</sup> RA Composite Polyiso Insulation	Polyisocyanurate/wood fiberboard or perlite composite	GAF
EnergyGuard <sup>™</sup> Perlite Roof Insulation	Perlite insulation board.	GAF
DensDeck® Roof Board	Gypsum board.	Georgia-Pacific Gypsum LLC
DensDeck® Prime® Roof Board	Gypsum board.	Georgia-Pacific Gypsum LLC
Structodek® High Density Fiber Board Roof Insulation	High Density Fiber Board	Blue Ridge Fiber Board, Inc.
Securock® Gypsum-Fiber Roof Board	Gypsum board.	United States Gypsum Corp.

# **APPROVED FASTENERS:**

		TABLE 3		
Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1	Drill-Tec <sup>™</sup> #14 Fastener	Insulation fastener and Base Ply fastener	Various	GAF
2	Drill-Tec <sup>™</sup> 3" Steel Plates	Round Galvalume® coated steel plates	3"	GAF
3	Drill-Tec <sup>™</sup> 2 in. Barbed Steel Plate	Base sheet fastener.	2"	GAF
4	Drill-Tec <sup>™</sup> AccuTrac <sup>®</sup> Flat Plate	Square Galvalume plates.	3"	GAF
5	Drill-Tec <sup>™</sup> AccuTrac <sup>®</sup> Recessed Plate	Square Galvalume plates.	3"	GAF

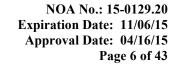
NOA No.: 15-0129.20

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EVIDENCE SUBMITTED:			
Test Agency/Identifier	<u>Name</u>	<b>Report</b>	<b>Date</b>
Factory Mutual Research Corp.	FMRC 4470	0D0A8.AM	07/09/97
The second secon	FMRC 4470	2B8A4.AM	07/02/97
	FMRC 4470	3005640	11/09/00
	FMRC 4470	3006845	10/17/00
	FMRC 4470	3005175	05/23/00
	FMRC 4470	3005177	05/19/00
	FMRC 4470	3007500	06/15/00
	FMRC 4470	3008178	12/27/00
	FMRC 4470	3010215	03/01/01
	FMRC 4470	3009788	03/28/01
	FMRC 4470	3017250	04/05/04
	FMRC 4470	3032811	12/11/08
	FMRC 4470	3042887	11/14/11
	FMRC 4470	3023458	07/18/06
	FMRC 4470	3036980	08/14/09
	FMRC 4470	3042905	01/10/12
	FMRC 4470	3046388	09/24/12
	FMRC 4470	3028039	09/11/06
	FMRC 4470	3035864	06/03/09
Independent Roof Testing &	TAS 114-J	No.00001	03/30/00
Consulting of South Florida	TAS 114-J	No.00002	03/30/00
Trinity ERD	ASTM D6163	#G6850.08.08	08/29/08
71	<b>ASTM D6862</b>	C8500SC.11.07	11/30/07
	TAS 114	#01881.09.03-2	03/24/08
	TAS 114	#01881.11.03-2-RI	08/21/07
	TAS 114	#4483.04.97-1	06/06/97
	<b>ASTM D6222</b>	G30250.02.10-2	02/11/10
	ASTM D3909	G30250.02.10-3-R1	11/26/12
	ASTM D6164	G31360.03.10	03/31/10
	ASTM D6164	G33470.01.11	01/13/11
	ASTM D6163	G34140.04.11-2	04/25/11
	ASTM D4601	G34140.04.11-4	04/25/11
	<b>ASTM D4879</b>	G34140.04.11-5	04/25/11
	<b>ASTM D4897</b>	G34140.04.11-5-R1	10/18/13
	<b>ASTM D6222</b>	G40620.07.12-2	07/17/12
	ASTM D6164	G40630.01.14-2A	01/07/14
	ASTM D6164	G40630.01.14-2A-1	01/07/14
	<b>ASTM D6164</b>	G40630.01.14-2B	01/07/14
	<b>ASTM D6164</b>	G40630.01.14-2B	03/31/10
	<b>ASTM D6164</b>	G40630.01.14-2C	01/07/14
	<b>ASTM D6163</b>	G40630.01-14-1	01/06/14
	<b>ASTM D6164</b>	G40630.03.14	03/06/14
	<b>ASTM D6222</b>	G43190.03.14-1	03/06/14
	ASTM D6222	G43190.03.14-2	03/06/14
	ACTM DCCCC	C42100 11 12 1	11/15/12

ASTM D6222



11/15/13

G43190.11.13-1

MIAMI-DADE COUNTY
APPROVED

# **EVIDENCE SUBMITTED: (CONTINUED)**

Evidence Schmitted: (Continued)					
<b>Test Agency/Identifier</b>	<b>Name</b>	<b>Report</b>	<b>Date</b>		
Trinity ERD	<b>ASTM D3909</b>	G43610.01.14	01/22/14		
	<b>ASTM D6163</b>	G46160.09.14-2A	09/09/14		
	<b>ASTM D6164</b>	G46160.09.14-3A	09/09/14		
	<b>ASTM D6164</b>	G46160.09.14-3B	09/09/14		
	<b>ASTM D6164</b>	G46160.09.14-3C	09/09/14		
	<b>ASTM D6163</b>	G6850.08.08	08/01/08		
	<b>ASTM D6164</b>	G6850.08.08-R1	04/14/11		
	<b>ASTM D6222</b>	G6850.10.08	10/06/08		
	ASTM D6222	G6850.11.08	02/17/09		
	ASTM D6222	G43190.05.14-R1	05/20/14		
	ASTM D3909	SC6870.08.14	08/19/14		
Underwriters Laboratories, Inc.	UL 790	R1306	07/22/13		
PRI Construction Materials	ASTM D6083	GAF-082-02-01	05/07/06		
Technologies LLC.	ASTM D6083	GAF-084-02-01	05/07/06		
	ASTM D6083	GAF-245-02-01	06/10/10		
	ASTM D6083	GAF-245-02-01	06/10/10		
	<b>ASTM D2178</b>	GAF-314-02-01	08/23/11		
	<b>ASTM D2178</b>	GAF-315-02-01	08/23/11		
	ASTM D1970	GAF-343-02-01	04/23/12		
	ASTM C1289	GAF-369-02-01	10/22/12		
	ASTM D6083	GAF-499-02-01	03/12/14		
	ASTM D6083	GAF-500-02-01	03/12/14		



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#### **APPROVED ASSEMBLIES:**

**Membrane Type:** APP & SBS

**Deck Type 3I:** Primed Concrete Decks, Insulated

**Deck Description:** 2500 psi structural concrete or concrete plank

System Type A(1): Insulation adhered with approved adhesive and membranes adhered to

insulation.

**Vapor Retarder:** (Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4, GAFGLAS®

FlexPly<sup>™</sup> 6, GAFGLAS<sup>®</sup> #75 Base Sheet, Tri-Ply<sup>®</sup> #75 Base Sheet, GAFGLAS<sup>®</sup> Ultima<sup>™</sup> #80 Base Sheet or Ruberoid<sup>®</sup> 20 adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix<sup>™</sup> 307

Premium Asphalt Primer.

#### All General and System Limitations shall apply.

One or more layers of any of the following insulations.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft²

EnergyGuard<sup>™</sup> Polyiso Insulation, EnergyGuard<sup>™</sup> RH Polyiso Insulation

Minimum. 1½" thick N/A N/A

Note: Base layer shall be adhered with OlyBond® at 1 gal./sq. full coverage, OlyBond 500® or OlyBond 500® Green in <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" o.c. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Fensity/ft²

DensDeck® Prime Roof Board, Securock Gypsum-Fiber Roof Board

Minimum. ¼" thick N/A N/A

Note: Apply top layer of insulation with OlyBond® at 1 gal./sq. full coverage, OlyBond 500® or OlyBond 500® Green in <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as Base Layer only shall be used only as base layers with a second layer of approved Top Insulation Layer installed as the final membrane substrate.

Anchor Sheet: Two plies of GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet

(Optional) or a single ply of GAFGLAS® Ultima™ #80 Base Sheet, Ruberoid® 20, Ruberoid®

Mop Smooth, Ruberoid<sup>®</sup> Mop Smooth 1.5, Ruberoid<sup>®</sup> Mop Plus Smooth,

Ruberoid® Heat-Weld™ 25, Ruberoid® Heat-Weld™ Smooth applied in hot asphalt

full mop at 25 lbs./sq.

Base Sheet: One or more plies of Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> 25 or Ruberoid<sup>®</sup> SBS Heat-

Weld<sup>™</sup> Smooth torch applied.

Or

One ply of Weather Watch® XT self-adhered to the insulation applied according to manufacturer's applications instructions when used with a torch adhered cap sheet. Note: Weather Watch® XT is not to be used if optional anchor sheet is

present.



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One or more plies of Ruberoid® SBS Heat-Weld™ 25 or Ruberoid® SBS Heat-Ply Sheet: (Optional)

Weld<sup>™</sup> Smooth torch applied.

One or more plies Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> 25, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> Membrane:

Smooth, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> Granule, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> 170 FR, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> Plus, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> Plus FR or Ruberoid® EnergyCap™ SBS Heat- Weld™ Plus FR, applied in accordance with

manufacturer's instructions.

One or more plies of Ruberoid® Torch Smooth, Tri-Ply® TP-4, Ruberoid® Torch Granule, Ruberoid® Torch 180, Tri-Ply® TP-4G, Ruberoid® Torch FR, Ruberoid® EnergyCap<sup>™</sup> Torch Granule FR or Ruberoid<sup>®</sup> EnergyCap<sup>™</sup> Torch Plus FR applied

in accordance with manufacturer's instructions.

Surfacing: Optional on granular surfaced membranes; required for smooth

> membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a

current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.

GAFGLAS® Mineral Surfaced Cap Sheet, Tri-Ply® Mineral Surfaced Cap Sheet or 2. GAFGLAS<sup>®</sup> EnergyCap<sup>™</sup> BUR Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Topcoat® Elastomeric Roofing Membrane, Topcoat® MB Plus (to be used as a primer with 3. Topcoat® Elastomeric Roofing Membrane) or Topcoat® Surface Seal SB applied at 1 to 1.5 gal./sq.

Maximum Design

Pressure: -300 psf. (See General Limitation #9)



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**Membrane Type:** SBS, Cold Applied

**Deck Type 3I:** Concrete Decks, Insulated

**Deck Description:** 2500 psi structural concrete or concrete plank

System Type A(2): Insulation adhered with approved adhesive and membranes adhered to

insulation.

**Vapor Retarder:** (Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4, GAFGLAS®

FlexPly<sup>™</sup> 6, GAFGLAS<sup>®</sup> #75 Base Sheet, Tri-Ply<sup>®</sup> #75 Base Sheet, GAFGLAS<sup>®</sup> Ultima<sup>™</sup> #80 Base Sheet or Ruberoid<sup>®</sup> 20 adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix<sup>™</sup> 307

Premium Asphalt Primer.

All General and System Limitations shall apply.

One or more layers of any of the following insulations.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Ensity/ft²

EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation,

EnergyGuard™ RH Polyiso Insulation

Minimum. 1½" thick N/A N/A

Note: Base layer shall be adhered with OlyBond® at 1 gal./sq. full coverage, OlyBond 500® or OlyBond 500® Green in <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" o.c. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Ensity/ft²

DensDeck® Prime Roof Board, Securock Gypsum-Fiber Roof Board

Minimum. <sup>1</sup>/<sub>4</sub>" thick N/A N/A

Note: Apply top layer of insulation with OlyBond® at 1 gal./sq. full coverage or OlyBond 500® or OlyBond 500® Green in <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as Base Layer only shall be used only as base layers with a second layer of approved Top Insulation Layer installed as the final membrane substrate.

Base Sheet: Two plies of GAFGLAS® #75 Base Sheet, Tri-Ply® 75 Base Sheet or GAFGLAS® #80 Ultima™ Base Sheet applied in hot asphalt full mop at 25

lbs./sq.

Ply Sheet: GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet applied in Matrix<sup>™</sup> 102

(Optional) SBS Membrane Adhesive at 1.5 gal./sq.

Ply Sheet: One or more Ruberoid® 20, Ruberoid Mop Smooth, Ruberoid® Mop Smooth 1.5,

or Ruberoid® Mop Plus Smooth applied In Matrix<sup>™</sup> 102 SBS Membrane

Adhesive at 1.5 gal./sq.



NOA No.: 15-0129.20 Expiration Date: 11/06/15 Approval Date: 04/16/15 Page 10 of 43 Membrane: One or more plies Ruberoid® 30, Ruberoid® 30 FR, Ruberoid® Mop Granule, Tri-

Ply<sup>®</sup> SBS Modified Bitumen Membrane, Intec Flex PRF, Ruberoid<sup>®</sup> Mop Smooth, Ruberoid<sup>®</sup> Mop Smooth 1.5, Ruberoid<sup>®</sup> Mop Plus Smooth, Ruberoid<sup>®</sup> Mop Plus, Ruberoid<sup>®</sup> Mop FR, Ruberoid<sup>®</sup> EnergyCap<sup>™</sup> Mop FR, Ruberoid<sup>®</sup> Mop 170FR or Ruberoid<sup>®</sup> EnergyCap<sup>™</sup> 30 FR SBS Membrane and applied in Matrix<sup>™</sup>

102 SBS Membrane Adhesive at a rate of 1.5 gal./sq.

Surfacing: Optional on granular surfaced membranes; required for smooth

membranes. Chosen components must be applied according to

manufacturer's application instructions. All coatings must be listed within a

current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.

2. GAFGLAS<sup>®</sup> Mineral Surfaced Cap Sheet, Tri-Ply<sup>®</sup> Mineral Surfaced Cap Sheet or GAFGLAS<sup>®</sup> EnergyCap<sup>™</sup> BUR Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

3. Topcoat<sup>®</sup> Elastomeric Roofing Membrane, Topcoat<sup>®</sup> MB Plus (to be used as a primer with Topcoat<sup>®</sup> Elastomeric Roofing Membrane) or Topcoat<sup>®</sup> Surface Seal SB applied at 1 to 1.5 gal./sq.

Maximum Design

Pressure: -137.5 psf. (See General Limitation #9)



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**Membrane Type:** APP & SBS

**Deck Type 3I:** Concrete Decks, Insulated

**Deck Description:** 2500 psi structural concrete or concrete plank

#### SYSTEM TYPE A(3): ADHERED INSULATED SYSTEMS

The following assembly is approved to a maximum design pressure per Insulation Maximum Design Pressure Table A. No substitutions shall be made:

Deck Type: Concrete, primed with Matrix<sup>™</sup> 307 Premium Asphalt Primer.

All General and System Limitations shall apply.

Anchor Sheet: Install one or more plies of GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, (Optional) GAFGLAS® #80 Ultima™ Base Sheet, GAFGLAS® Ply 4, Tri-Ply® Ply 4, GAFGLAS®

FlexPly<sup>™</sup> 6, Ruberoid<sup>®</sup> Mop Smooth, Ruberoid<sup>®</sup> Mop Smooth 1.5, Ruberoid<sup>®</sup> Mop Plus Smooth or Ruberoid<sup>®</sup> 20 mopped directly to the substrate. Adhere with any approved

mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Insulations: See Insulation Maximum Design Pressure Table A below. Design Pressure is

dependent on Insulation assembly # used in this system.

Base Sheet: Install one ply of GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS®

#80 Ultima<sup>™</sup> Base Sheet, GAFGLAS<sup>®</sup> Ply 4, Tri-Ply<sup>®</sup> Ply 4, GAFGLAS<sup>®</sup> FlexPly<sup>™</sup> 6, Ruberoid<sup>®</sup> 20, Ruberoid<sup>®</sup> Mop Smooth, Ruberoid<sup>®</sup> Mop Smooth 1.5 or Ruberoid<sup>®</sup> Mop Plus Smooth mopped directly to the insulated substrate. Adhere with any approved

mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: One, two or three plies of Ruberoid® 20, GAFGLAS® Ply 4, Tri-Ply® Ply 4 or

(Optional) GAFGLAS® FlexPly™ 6 adhered in a full mopping of approved asphalt applied within

the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One or more plies of Ruberoid® Torch Smooth, Tri-Ply® TP-4, Ruberoid® Torch

Granule, Ruberoid® Torch 180, Tri-Ply® TP-4G, Ruberoid® Torch FR, Ruberoid® EnergyCap™ Torch Granule FR or Ruberoid® EnergyCap™ Torch Plus FR applied in

accordance with manufacturer's instructions.

Or

Ruberoid® 20, Ruberoid® 30, Ruberoid® 30 FR, Ruberoid® Mop Granule, Tri-Ply® SBS Modified Bitumen Membrane, Intec Flex PRF, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® Mop Plus, Ruberoid® Mop FR, Ruberoid® EnergyCap™ Mop FR, Ruberoid® Mop 170FR or Ruberoid® EnergyCap™

30 FR SBS Membrane applied in accordance with manufacturer's instructions.

Or

Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> 25, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> Smooth, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> Granule, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> 170 FR, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> Plus, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> Plus FR or Ruberoid<sup>®</sup> EnergyCap<sup>™</sup> Plus FR or Ruberoid<sup>®</sup> Plus

Weld<sup>™</sup> Plus FR applied according to manufacturer's application instructions.



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#### Surfacing:

Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

- 1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
- 2. GAFGLAS<sup>®</sup> Mineral Surfaced Cap Sheet, Tri-Ply<sup>®</sup> Mineral Surfaced Cap Sheet or GAFGLAS<sup>®</sup> EnergyCap<sup>™</sup> BUR Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- 3. Topcoat<sup>®</sup> Elastomeric Roofing Membrane, Topcoat<sup>®</sup> MB Plus (to be used as a primer with Topcoat<sup>®</sup> Elastomeric Roofing Membrane) or Topcoat<sup>®</sup> Surface Seal SB applied at 1 to 1.5 gal./sq.

	Insulation Maximum Design Pressure Table A for Assembly A(3)			
#	Insulation Assemblies			
1.	Min. 1½" EnergyGuard <sup>™</sup> Composite RA Polyiso Insulation, EnergyGuard <sup>™</sup> PolyIso Insulation or EnergyGuard <sup>™</sup> RH PolyIso Insulation, EnergyGuard <sup>™</sup> RN Polyiso Insulation laid with the polyisocyanurate side down and bonded in a full mopping of an approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.			
	Maximum Design Pressure –270 psf. (See General Limitation #9)			

2. **Base Layer:** Min. 1" EnergyGuard<sup>™</sup> PolyIso Insulation or EnergyGuard<sup>™</sup> RH PolyIso Insulation, EnergyGuard<sup>™</sup> RN Polyiso Insulation mopped in asphalt at the rate of 20-40 lbs./sq.

**Top Layer:** Min. ½" EnergyGuard<sup>™</sup> Perlite Roof Insulation or EnergyGuard<sup>™</sup> Perlite Recover Board adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Maximum Design Pressure –322.5 psf. (See General Limitation #9)

3. **Base Layer:** Min. 1" EnergyGuard<sup>™</sup> RA Polyiso Insulation mopped in asphalt at the rate of 20-40 lbs./sq.

*Top Layer*: Min. ½" Structodek® High Density Fiber Board Roof Insulation adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Maximum Design Pressure –307.5 psf. (See General Limitation #9)

4. **Base Layer:** Min. 1" EnergyGuard<sup>™</sup> RA Polyiso Insulation mopped in asphalt at the rate of 20-40 lbs./sq.

**Top Layer:** Min. ½" EnergyGuard<sup>™</sup> Perlite Roof Insulation or EnergyGuard<sup>™</sup> Perlite Recover Board adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Maximum Design Pressure –165 psf. (See General Limitation #9)

5. **Base Layer:** Two Min. 3/4" layers EnergyGuard<sup>™</sup> Perlite Roof Insulation or EnergyGuard<sup>™</sup> Perlite Recover Board adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Top Layer:** Min. <sup>1</sup>/<sub>4</sub>" DensDeck® Roof Board mopped in asphalt at the rate of 20-40 lbs./sq. **Maximum Design Pressure –172.5 psf. (See General Limitation #9)** 

6. **Base Layer:** Min. 1" EnergyGuard<sup>™</sup> RA Polyiso Insulation mopped in asphalt at the rate of 20-40 lbs./sq.

**Top Layer:** Min. ½" Structodek® High Density Fiber Board Roof Insulation adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Maximum Design Pressure –237.5 psf. (See General Limitation #9)



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#### **Insulation Maximum Design Pressure Table A for Assembly A(3)**

7. Min. 1¾" EnergyGuard™ Composite Polyiso Insulation laid with the polyisocyanurate side down and bonded in a full mopping of an approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Maximum Design Pressure –270 psf. (See General Limitation #9)

8. Min. ½" Structodek® High Density Fiber Board Roof Insulation or min. 1" EnergyGuard™ Perlite Roof Insulation or EnergyGuard™ Perlite Recover Board adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Maximum Design Pressure -140 psf. (See General Limitation #9)

9. **Base Layer**: Min. 2" EnergyGuard<sup>™</sup> PolyIso Insulation or EnergyGuard<sup>™</sup> RH PolyIso Insulation, EnergyGuard<sup>™</sup> RN Polyiso Insulation

**Top Layer**: Min. ½" EnergyGuard<sup>™</sup> Perlite Roof Insulation or EnergyGuard<sup>™</sup> Perlite Recover Board adhered in a full mopping of approved asphalt applied within the EVT range at a rate of 20-40 lbs./sq.

Maximum Design Pressure –322.5 psf. (See General Limitation #9)

10. Min. ¾" EnergyGuard™ Perlite Roof Insulation or EnergyGuard™ Perlite Recover Board adhered to the primed concrete deck in a full mopping of approved asphalt applied within the EVT range at a rate of 20-40 lbs./sq.

Maximum Design Pressure –137 psf. (See General Limitation #9)

11. **Base Layer**: Min. 1¼" EnergyGuard<sup>™</sup> PolyIso Insulation or EnergyGuard<sup>™</sup> RH PolyIso Insulation, EnergyGuard<sup>™</sup> RA Polyiso Insulation, EnergyGuard<sup>™</sup> RN Polyiso Insulation, EnergyGuard<sup>™</sup> Composite Polyiso Insulation adhered to the concrete deck in a full mopping of approved asphalt applied within the EVT range at a rate of 20-40 lbs./sq..

**Top Layer:** Min. ½" Structodek® High Density Fiber Board Roof Insulation adhered to the base insulation layer in a full mopping of approved asphalt applied within the EVT range at a rate of 20-40 lbs./sq.

Maximum Design Pressure -162 psf. (See General Limitation #9)

12. **Base Layer**: Min. 1¼" EnergyGuard<sup>™</sup> PolyIso Insulation or EnergyGuard<sup>™</sup> RH PolyIso Insulation, EnergyGuard<sup>™</sup> RA Polyiso Insulation, EnergyGuard<sup>™</sup> RN Polyiso Insulation adhered to the concrete deck in a full mopping of approved asphalt applied within the EVT range at a rate of 20-40 lbs./sq..

**Top Layer:** Min. ¾" EnergyGuard<sup>™</sup> Perlite Roof Insulation or EnergyGuard<sup>™</sup> Perlite Recover Board adhered to the base insulation layer in a full mopping of approved asphalt applied within the EVT range at a rate of 20-40 lbs./sq..

Maximum Design Pressure –157 psf. (See General Limitation #9)

- Min. ½" EnergyGuard™ Perlite Roof Board or EnergyGuard™ Perlite Recover Board adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
   Maximum Design Pressure –90 psf. (See General Limitation #9)
- 14. Min. 1½" EnergyGuard<sup>™</sup> Composite Polyiso Insulation Deck is primed with Matrix<sup>™</sup> 307 Premium Asphalt Primer at a nominal rate of 0.75 ga/sq. Deck is covered with a Ruberoid<sup>®</sup> roof cover assembly fully adhered with hot asphalt applied at a minimum rate of 25 lbs./sq. (1.2 kg/m²)

Maximum Design Pressure -360 psf. (See General Limitation #9)



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**Deck Type 3I:** Concrete Decks, Insulated

**Deck Description:** 2500 psi structural concrete or concrete plank

#### SYSTEM TYPE A(4): ADHERED INSULATED SYSTEMS

The following assembly is approved to a maximum design pressure per Insulation Maximum Design Pressure Table B. No substitutions shall be made:

Deck Type: Concrete, primed with Matrix<sup>™</sup> 307 Premium Asphalt Primer.

All General and System Limitations shall apply.

Anchor Sheet: Install one or more plies of GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet, (Optional) GAFGLAS® #80 Ultima™ Base Sheet, GAFGLAS® Ply 4, Tri-Ply® Ply 4, GAFGLAS®

FlexPly<sup>™</sup> 6, Ruberoid<sup>®</sup> Mop Smooth or Ruberoid<sup>®</sup> 20 mopped directly to deck primed with Matrix<sup>™</sup> 307 Premium Asphalt Primer. Adhere with any approved mopping

asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Insulations: See Insulation Maximum Design Pressure Table B below. Design Pressure is

dependent on Insulation assembly # used in this system.

Base Sheet: Install one ply of GAFGLAS® Stratavent® Eliminator™ Perforated Venting Base Sheet,

lose laid dry

Ply Sheet: (Note, required if membrane is APP/SBS Heat-Weld<sup>™</sup> or Mineral Surface Cap

(Optional) Sheets) One or more plies of Ruberoid® 20, GAFGLAS® Ply 4, Tri-Ply® Ply 4 or

GAFGLAS® FlexPly™ 6 adhered in a full mopping of approved asphalt applied within

the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One or more plies of Ruberoid® Torch Smooth, Tri-Ply® TP-4, Ruberoid® Torch

Granule, Ruberoid<sup>®</sup> Torch 180, Tri-Ply<sup>®</sup> TP-4G, Ruberoid<sup>®</sup> Torch FR, Ruberoid<sup>®</sup> EnergyCap<sup>™</sup> Torch Granule FR or Ruberoid<sup>®</sup> EnergyCap<sup>™</sup> Torch Plus FR applied in

accordance with manufacturer's instructions.

Or

Ruberoid® 20, Ruberoid® 30, Ruberoid® 30 FR, Ruberoid® Mop Granule, Tri-Ply® SBS Modified Bitumen Membrane, Intec Flex PRF, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® Mop Plus, Ruberoid® Mop FR, Ruberoid® EnergyCap™ Mop FR, Ruberoid® Mop 170FR or Ruberoid® EnergyCap™ 30 FR SPS Mombrane applied in accordance with manufacturer? instructions

30 FR SBS Membrane applied in accordance with manufacturer's instructions.

Or

Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> 25, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> Smooth, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> Granule, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> 170 FR, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> Plus, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> Plus FR or Ruberoid<sup>®</sup> EnergyCap<sup>™</sup> Plus FR or Ruberoid<sup>®</sup> Plus FR or Ruberoid<sup>®</sup> EnergyCap<sup>™</sup> Plus FR or Ruberoid<sup>®</sup> P

Weld<sup>™</sup> Plus FR applied in accordance with manufacturer's instructions.

Or

(Only for use over Ruberoid® 20 Ply Sheet) GAFGLAS® Mineral Surfaced Cap Sheet, Tri-Ply® Mineral Surfaced Cap Sheet, GAFGLAS® EnergyCap™ BUR Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.



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Surfacing: Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application

instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.

- 2. GAFGLAS<sup>®</sup> Mineral Surfaced Cap Sheet, Tri-Ply<sup>®</sup> Mineral Surfaced Cap Sheet or GAFGLAS<sup>®</sup> EnergyCap<sup>™</sup> BUR Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- 3. Topcoat<sup>®</sup> Elastomeric Roofing Membrane, Topcoat<sup>®</sup> MB Plus (to be used as a primer with Topcoat<sup>®</sup> Elastomeric Roofing Membrane) or Topcoat<sup>®</sup> Surface Seal SB applied at 1 to 1.5 gal./sq.

	Insulation Maximum Design Pressure Table B for Assembly A(4)
#	Insulation Assemblies
1.	Min. 1" EnergyGuard <sup>™</sup> Polyiso Insulation or EnergyGuard <sup>™</sup> RH Polyiso Insulation, EnergyGuard <sup>™</sup> RA Polyiso Insulation mopped in asphalt at the rate of 20-40 lbs./sq.
	Maximum Design Pressure –150 psf. (See General Limitation #9)

2. (Optional)Base Layer: Min. 1" EnergyGuard™ Polyiso Insulation or EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation mopped in asphalt at the rate of 20-40 lbs./sq.

*Top Layer*: Min. <sup>1</sup>/<sub>4</sub>" DensDeck<sup>®</sup> or Securock Gypsum-Fiber Roof Board mopped in asphalt at the rate of 20-40 lbs./sq.

Maximum Design Pressure -240 psf. (See General Limitation #9)

3. (Optional) Base Layer: Min. 1" EnergyGuard™ Polyiso Insulation or EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation, EnergyGuard™ Composite Polyiso Insulation or mopped in asphalt at the rate of 20-40 lbs./sq.

**Top Layer:** Min. ¾" EnergyGuard<sup>™</sup> Perlite Roof Insulation, EnergyGuard<sup>™</sup> Perlite Recover Board or Min. ½" Structodek<sup>®</sup> High Density Fiber Board Roof Insulation adhered to the base insulation layer or primed concrete deck in a full mopping of approved asphalt applied within the EVT range at a rate of 20-40 lbs./sq.

Maximum Design Pressure -90 psf. (See General Limitation #9)

4. *(Optional) Base Layer*: Min. 1" EnergyGuard<sup>™</sup> Polyiso Insulation or EnergyGuard<sup>™</sup> RH Polyiso Insulation, EnergyGuard<sup>™</sup> RA Polyiso Insulation, EnergyGuard<sup>™</sup> Composite Polyiso Insulation mopped in asphalt at the rate of 20-40 lbs./sq.

**Top Layer:** Min. <sup>3</sup>/<sub>4</sub>" EnergyGuard<sup>™</sup> Perlite Roof Insulation, EnergyGuard<sup>™</sup> Perlite Recover Board or other approved perlite insulation board Min. <sup>1</sup>/<sub>2</sub>" Structodek<sup>®</sup> High Density Fiber Board Roof Insulation adhered to the base insulation layer or concrete deck primed with Matrix<sup>™</sup> 307 Premium Asphalt Primer in a full mopping of approved asphalt applied within the EVT range at a rate of 20-40 lbs./sq.

Maximum Design Pressure –90 psf. (See General Limitation #9)



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**Deck Type 3I:** Concrete Decks, Insulated

**Deck Description:** 2500 psi structural concrete or concrete plank

System Type A(5): Insulation adhered with approved adhesive and membranes adhered to

insulation.

**Vapor Retarder:** (Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4, GAFGLAS®

FlexPly<sup>™</sup> 6, GAFGLAS<sup>®</sup> #75 Base Sheet, Tri-Ply<sup>®</sup> #75 Base Sheet, GAFGLAS<sup>®</sup> Ultima<sup>™</sup> #80 Base Sheet or Ruberoid<sup>®</sup> 20 adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix<sup>™</sup> 307

Premium Asphalt Primer.

All General and System Limitations shall apply.

One or more layers of any of the following insulations.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft²

EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation,

EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation

Minimum. 2" thick N/A N/A

Note: Base layer shall be adhered with hot asphalt applied at 20-25 lbs./sq. or OlyBond 500® or OlyBond 500® Green in 3/4" to 1" wide ribbons spaced 12" o.c.

Top Insulation Layer Insulation Fasteners (Table 3) Density/ft<sup>2</sup>
Securock Gypsum-Fiber Roof Board
Minimum. ½" thick N/A N/A

Note: Apply top layer of insulation with OlyBond® at 1 gal./sq. full coverage, OlyBond 500® or OlyBond 500® Green <sup>3</sup>/<sub>4</sub>" to 1" wide ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: GAFGLAS<sup>®</sup> Stratavent<sup>®</sup> Eliminator<sup>™</sup> Perforated Venting Base Sheet loose laid.

Or

One or more plies of Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5 or Ruberoid® Mop Plus Smooth adhered in a full mopping of approved asphalt

applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Note: required if GAFGLAS® Stratavent Eliminator™ Perforated Venting (Optional)

Base Sheet is used) One or more plies of GAFGLAS® #80 Ultima™ Base Sheets

**Base Sheet is used)** One or more plies of GAFGLAS® #80 Ultima™ Base Sheets, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or Ruberoid® 20, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate

of 20-40 lbs./sq.



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One or more plies of Ruberoid® 30, Ruberoid® 30 FR, Ruberoid® Mop Granule, Tri-Ply® SBS Modified Bitumen Membrane, Intec Flex PRF, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® Mop Plus, Ruberoid<sup>®</sup> Mop FR, Ruberoid<sup>®</sup> EnergyCap<sup>™</sup> Mop FR, Ruberoid<sup>®</sup> Mop 170 FR, Ruberoid® EnergyCap™ 30 FR SBS Membrane adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

(Only for use over Ruberoid® 20 Ply Sheet) GAFGLAS® Mineral Surfaced Cap Sheet, Tri-Ply® Mineral Surfaced Cap Sheet, GAFGLAS® EnergyCap™ BUR Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing:

Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

- Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved 1. asphalt at 60 lbs./sq.
- GAFGLAS® Mineral Surfaced Cap Sheet, Tri-Ply® Mineral Surfaced Cap Sheet or 2. GAFGLAS<sup>®</sup> EnergyCap<sup>™</sup> BUR Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- Topcoat<sup>®</sup> Elastomeric Roofing Membrane, Topcoat<sup>®</sup> MB Plus (to be used as a primer with 3. Topcoat<sup>®</sup> Elastomeric Roofing Membrane) or Topcoat<sup>®</sup> Surface Seal SB applied at 1 to 1.5 gal./sq.

Maximum Design

Pressure: -225 psf. (See General Limitation #9)



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**Membrane Type:** SBS

**Deck Type 3I:** Concrete Decks, Insulated

**Deck Description:** 2500 psi structural concrete or concrete plank primed

**System Type A(6):** Membrane fully adhered with approved asphalt.

**Vapor Retarder:** (Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4, GAFGLAS®

#75 Base Sheet, Tri-Ply® #75 Base Sheet, GAFGLAS® Ultima<sup>™</sup> #80 Base Sheet or Ruberoid® 20 adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix<sup>™</sup> 307 Premium Asphalt Primer.

All General and System limitations apply.

Insulation Layer Insulation Fasteners Fastener (Table 3) Fastener

EnergyGuard<sup>™</sup> Polyiso Insulation, EnergyGuard<sup>™</sup> Tapered Polyiso Insulation Minimum ½" thick N/A

N/A N/A

Note: One or more layers of insulation (maximum of 12 inches) shall be adhered with hot asphalt applied at 20-25 lbs. to deck primed with ASTM D-41 Asphalt Primer or Matrix<sup>™</sup> 307 Premium if optional vapor retarder is not present.

Base Sheet: One ply of GAFGLAS® Stratavent® Eliminator™ Perforated Venting Base Sheet

loose laid dry with 2" side laps.

Ply Sheet: One ply of Ruberoid® 20, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Smooth or

Ruberoid® Mop Plus Smooth adhered in a full mopping of approved asphalt

applied within the EVT range and at a rate of 20-40 lbs./sq.

OR

Two or three plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4, GAFGLAS® FlexPly™ 6 adhered in a full mopping of approved asphalt applied within the EVT range and at

a rate of 20-40 lbs./sq.

Membrane: One or more plies of Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5,

Ruberoid<sup>®</sup> Mop Plus Smooth, Ruberoid<sup>®</sup> Mop Granule, Tri-Ply<sup>®</sup> SBS Modified Bitumen Membrane, Ruberoid<sup>®</sup> Mop 170 FR, Ruberoid<sup>®</sup> Mop Plus, Intec Flex PRF or Ruberoid<sup>®</sup> Mop FR or Ruberoid<sup>®</sup> EnergyCap<sup>™</sup> Mop FR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40

lbs./sq.

Or

(Only for use over Ruberoid® 20, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5 or Ruberoid® Mop Plus Smooth Ply Sheet) GAFGLAS® Mineral

Surfaced Cap Sheet, Tri-Ply® Mineral Surfaced Cap Sheet, GAFGLAS® EnergyCap™ BUR Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.



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Surfacing: Optional on granular surfaced membranes; required for smooth

membranes. Chosen components must be applied according to

manufacturer's application instructions. All coatings must be listed within a

current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.

2. GAFGLAS<sup>®</sup> Mineral Surfaced Cap Sheet, Tri-Ply<sup>®</sup> Mineral Surfaced Cap Sheet or GAFGLAS<sup>®</sup> EnergyCap<sup>™</sup> BUR Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

3. Topcoat<sup>®</sup> Elastomeric Roofing Membrane, Topcoat<sup>®</sup> MB Plus (to be used as a primer with Topcoat<sup>®</sup> Elastomeric Roofing Membrane) or Topcoat<sup>®</sup> Surface Seal SB applied at 1 to 1.5 gal./sq.

Maximum Design

Pressure: -150 psf. (See General Limitation #9)



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**SBS Membrane Type:** 

Deck Type 3I: Concrete Decks, Insulated

**Deck Description:** 2500 psi structural concrete or concrete plank

Base sheet adhered with approved asphalt; base insulation layer mechanically **System Type B:** 

fastened, optional top layer adhered with approved asphalt.

(Optional) One or more plies of GAFGLAS® Ply 4. Tri-Ply® Ply 4. GAFGLAS® **Vapor Retarder:** 

> FlexPly<sup>™</sup> 6, GAFGLAS<sup>®</sup> #75 Base Sheet, Tri-Ply<sup>®</sup> #75 Base Sheet, GAFGLAS<sup>®</sup> Ultima<sup>™</sup> #80 Base Sheet or Ruberoid<sup>®</sup> 20 adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix<sup>™</sup> 307

Premium Asphalt Primer.

### All General and System Limitations shall apply.

One or more layers of any of the following insulations.

**Base Insulation Layer Insulation Fasteners** Fastener Density/ft<sup>2</sup> (Table 3) EnergyGuard<sup>™</sup> Polyiso Insulation, EnergyGuard<sup>™</sup> Composite Polyiso Insulation,

EnergyGuard™ RA Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation

Minimum. 2" thick 1:1.45

Note: See Roofing Application Standard RAS 117 for fastening details. GAF requires either a ply of GAFGLAS® Stratavent® Eliminator™ Perforated Venting Base Sheet laid dry or a layer of EnergyGuard® Perlite Roof Insulation or wood fiber overlay board on all polyisocyanurate applications.

**Top Insulation Layer Insulation Fasteners** Fastener Density/ft<sup>2</sup> (Table 3) Any of the insulations listed for Base Layer, above. N/A N/A

Note: Apply top layer of insulation in a full mopping of any approved mopping asphalt within the EVT range and at a rate of 20-40 lbs./100 ft<sup>2</sup>. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as Base Layer only shall be used only as base layers with a second layer of approved Top Insulation Layer installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: Install one ply of GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet,

GAFGLAS® #80 Ultima<sup>™</sup> Base Sheet, GAFGLAS® Ply 4, Tri-Ply® Ply 4 or GAFGLAS® FlexPly™ 6 or Ruberoid® 20 Adhere directly to the insulated

substrate with any approved mopping asphalt applied within the EVT range and at

a rate of 20-40 lbs./sq.

GAFGLAS® Stratavent® Eliminator™ Perforated Venting Base Sheet loose laid

One or more plies of GAFGLAS<sup>®</sup> Ply 4, Tri-Ply<sup>®</sup> Ply 4, GAFGLAS FlexPly<sup>™</sup> 6 or Ply Sheet: (Optional)

GAFGLAS® #80 Ultima™ Base Sheet. Adhere with any approved mopping asphalt

applied within the EVT range and at a rate of 20-40 lbs./sq.



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Membrane: One or more plies ply of Ruberoid® 20, Ruberoid® 30, Ruberoid® 30 FR,

Ruberoid® Mop Granule, Tri-Ply® SBS Modified Bitumen Membrane, Intec Flex PRF, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® Mop Plus, Ruberoid® Mop FR, Ruberoid® EnergyCap™ Mop FR, Ruberoid® Mop 170FR or Ruberoid® EnergyCap™ 30 FR SBS Membrane adhere with any approved mopping asphalt applied within the EVT range and at a

rate of 20-40 lbs./sq.

Surfacing: Optional on granular surfaced membranes; required for smooth membranes.

Chosen components must be applied according to manufacturer's application

instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.

- 2. GAFGLAS<sup>®</sup> Mineral Surfaced Cap Sheet, Tri-Ply<sup>®</sup> Mineral Surfaced Cap Sheet or GAFGLAS<sup>®</sup> EnergyCap<sup>™</sup> BUR Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- 3. Topcoat<sup>®</sup> Elastomeric Roofing Membrane, Topcoat<sup>®</sup> MB Plus (to be used as a primer with Topcoat<sup>®</sup> Elastomeric Roofing Membrane) or Topcoat<sup>®</sup> Surface Seal SB applied at 1 to 1.5 gal./sq.

Maximum Design

Pressure: -67.5 psf. (See General Limitation #7)



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Membrane Type: APP & SBS Heat-Weld

Deck Type 3I: Concrete Decks, Insulated

**Deck Description:** 2500 psi structural concrete or concrete plank

**System Type C(1):** All layers of insulations are mechanically attached to roof deck. Membrane is

subsequently fully or partially adhered to insulation.

Vapor Retarder: (Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4, GAFGLAS®

FlexPly<sup>™</sup> 6, GAFGLAS<sup>®</sup> #75 Base Sheet, Tri-Ply<sup>®</sup> #75 Base Sheet, GAFGLAS<sup>®</sup> Ultima<sup>™</sup> #80 Base Sheet or Ruberoid<sup>®</sup> 20 adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix<sup>™</sup> 307

Premium Asphalt Primer.

All General and System Limitations shall apply.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) The Density/ft<sup>2</sup>

EnergyGuard<sup>™</sup> Polyiso Insulation, EnergyGuard<sup>™</sup> RH Polyiso Insulation,

EnergyGuard<sup>™</sup> Composite Polyiso Insulation, EnergyGuard<sup>™</sup> RA Polyiso Insulation,

**EnergyGuard™ RN Polyiso Insulation** 

Minimum 1½" thick N/A N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Tensity/ft²

DensDeck® Roof Board, Securock Gypsum-Fiber Roof Board

Minimum 1/4" thick 1, 4 1:1

Base Sheet: Install one ply of GAFGLAS® Stratavent® Eliminator™ Perforated Venting Base

Sheet loose laid dry.

Ply Sheet: One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4, GAFGLAS® FlexPly™ 6 or

GAFGLAS® #80 Ultima<sup>™</sup> Base Sheet, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5 or Ruberoid® Mop Plus Smooth adhere with any approved mopping

asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One or more plies of Ruberoid® Torch Smooth, Tri-Ply® TP-4, Ruberoid® Torch

Granule, Ruberoid® Torch 180, Tri-Ply® TP-4G, Ruberoid® Torch FR, Ruberoid® EnergyCap™ Torch Granule FR or Ruberoid® EnergyCap™ Torch Plus FR applied

in accordance with manufacturer's instructions.

Or

One or more plies of Ruberoid® SBS Heat-Weld 25, Ruberoid® SBS Heat-Weld™ Smooth, Ruberoid® SBS Heat-Weld™ Granule, Ruberoid® SBS Heat-Weld™ 170 FR, Ruberoid® SBS Heat-Weld™ Plus, Ruberoid® SBS Heat-Weld™ Plus FR or Ruberoid® EnergyCap™ SBS Heat-Weld™ Plus FR applied in accordance with

manufacturer's instructions.



NOA No.: 15-0129.20 Expiration Date: 11/06/15 Approval Date: 04/16/15 Page 23 of 43 Surfacing: Optional on granular surfaced membranes; required for smooth membranes.

Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.

- 2. GAFGLAS<sup>®</sup> Mineral Surfaced Cap Sheet, Tri-Ply<sup>®</sup> Mineral Surfaced Cap Sheet or GAFGLAS<sup>®</sup> EnergyCap<sup>™</sup> BUR Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- 3. Topcoat® Elastomeric Roofing Membrane, Topcoat® MB Plus (to be used as a primer with Topcoat® Elastomeric Roofing Membrane) or Topcoat® Surface Seal SB applied at 1 to 1.5 gal./sq.

Maximum Design

Pressure: -82.5 psf. (See General Limitation #7)



NOA No.: 15-0129.20 Expiration Date: 11/06/15 Approval Date: 04/16/15 Page 24 of 43 **Membrane Type:** SBS

**Deck Type 3I:** Concrete Decks, Insulated

**Deck Description:** 2500 psi structural concrete or concrete plank

System Type C(2): All layers of insulations are mechanically attached roof deck. Membrane is

subsequently fully or partially adhered to insulation.

Vapor Retarder: (Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4, GAFGLAS®

FlexPly<sup>™</sup> 6, GAFGLAS<sup>®</sup> #75 Base Sheet, Tri-Ply<sup>®</sup> #75 Base Sheet, GAFGLAS<sup>®</sup> Ultima<sup>™</sup> #80 Base Sheet or Ruberoid<sup>®</sup> 20 adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix<sup>™</sup> 307

Premium Asphalt Primer.

All General and System Limitations shall apply.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft²

EnergyGuard™ Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation,

EnergyGuard<sup>™</sup> Composite Polyiso Insulation, EnergyGuard<sup>™</sup> RA Polyiso Insulation,

EnergyGuard<sup>™</sup> RN Polyiso Insulation

Minimum 1½" thick N/A N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
DensDeck® Roof Board, Securock Gypsum-Fiber Roof Boar	'd	
Minimum ¼" thick	1, 4	1:1

Base Sheet: Install one ply of GAFGLAS® Stratavent® Eliminator™ Perforated Venting Base

Sheet loose laid dry.

Ply Sheet: One or more plies of Ruberoid<sup>®</sup> 20, GAFGLAS<sup>®</sup> Ply 4, Tri-Ply<sup>®</sup> Ply 4 or

(Optional) GAFGLAS® FlexPly™ 6 or GAFGLAS® #80 Ultima™ Base Sheet, Ruberoid® Mop

Smooth, Ruberoid<sup>®</sup> Mop Smooth 1.5 or Ruberoid<sup>®</sup> Mop Plus Smooth adhere with any approved mopping asphalt applied within the EVT range and at a rate of 20-40

lbs./sq.

Membrane: One or more plies ply of Ruberoid® 20, Ruberoid® 30, Ruberoid® 30 FR, Ruberoid®

Mop Granule, Tri-Ply® SBS Modified Bitumen Membrane, Intec Flex PRF,

Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth,

Ruberoid<sup>®</sup> Mop Plus, Ruberoid<sup>®</sup> Mop FR, Ruberoid<sup>®</sup> EnergyCap<sup>™</sup> Mop FR,

Ruberoid<sup>®</sup> Mop 170FR or Ruberoid<sup>®</sup> EnergyCap<sup>™</sup> 30 FR SBS Membrane adhered with any approved mopping asphalt applied within the EVT range and at a rate of

20-40 lbs./sq.



NOA No.: 15-0129.20 Expiration Date: 11/06/15 Approval Date: 04/16/15 Page 25 of 43 Surfacing: Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of

approved asphalt at 60 lbs./sq.

2. GAFGLAS<sup>®</sup> Mineral Surfaced Cap Sheet, Tri-Ply<sup>®</sup> Mineral Surfaced Cap Sheet or GAFGLAS<sup>®</sup> EnergyCap<sup>™</sup> BUR Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

3. Topcoat<sup>®</sup> Elastomeric Roofing Membrane, Topcoat<sup>®</sup> MB Plus (to be used as a primer with Topcoat<sup>®</sup> Elastomeric Roofing Membrane) or Topcoat<sup>®</sup> Surface Seal SB applied at 1 to 1.5 gal./sq.

Maximum Design

1.

Pressure: -82.5 psf. (See General Limitation #7)



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**APP Membrane Type:** 

Deck Type 3I: 2500 psi Structural Concrete over Steel, Insulated

Minimum 22 ga. [0.0295 in. thick], grade 33, type B, steel deck was secured to **Deck Description:** 

> 0.25 in. thick structural supports spaced at 6' o.c. using two ICH Traxx/5 fasteners and 0.75 in. washers spaced 6 in. o.c. along each support. The deck side laps were fastened with ICH Traxx/1 fasteners spaced at 12 in. o.c. along each side lap.

Base insulation loose laid; top layer of insulation is mechanically fastened. System Type C(3):

(Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4, GAFGLAS® Vapor Retarder:

FlexPly<sup>™</sup> 6, GAFGLAS<sup>®</sup> #75 Base Sheet, Tri-Ply<sup>®</sup> #75 Base Sheet, GAFGLAS<sup>®</sup> Ultima<sup>™</sup> #80 Base Sheet or Ruberoid<sup>®</sup> 20 adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix<sup>™</sup> 307

Premium Asphalt Primer.

All General and System limitations apply.

One or more layers of each of the following insulations.

Base Insulation Layer	Insulation Fasteners	Fastener
	(Table 3)	Density/ft <sup>2</sup>
EnergyGuard <sup>™</sup> Polviso Insulation, EnergyGuard <sup>™</sup>	RA Polviso Insulation,	

EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation

Minimum 1½" thick N/A

Note: Both layers shall be simultaneously attached; see top layer below for fasteners and density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Top Insulation Layer Insulation Fasteners Fastener** (Table 3) Density/ft<sup>2</sup>

Securock® Gypsum-Fiber Roof Board

Minimum ½" thick 1 & 6 1:1 ft<sup>2</sup>

Note: All layers of insulation and optional vapor retarder (when present) shall be mechanically attached using the fastener density listed above. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

One or more plies of Ruberoid® SBS Heat-Weld™ 25 or Ruberoid® SBS Heat-Base Sheet:

Weld<sup>™</sup> Smooth torch adhered with 3 in. wide side laps in accordance to

manufacturer's instructions.

Membrane: Ruberoid® Torch Smooth, Tri-Ply® TP-4, Ruberoid® Torch Granule, Ruberoid®

Torch 180, Tri-Ply® TP-4G, Ruberoid® Torch FR, Ruberoid® EnergyCap™ Torch Plus FR or Ruberoid® EnergyCap<sup>™</sup> Torch Granule FR, torch adhered with 3 in.

wide side laps in accordance to manufacturer's instructions.



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Surfacing: Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

- 1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
- 2. GAFGLAS<sup>®</sup> Mineral Surfaced Cap Sheet, Tri-Ply<sup>®</sup> Mineral Surfaced Cap Sheet or GAFGLAS<sup>®</sup> EnergyCap<sup>™</sup> BUR Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- 3. Topcoat<sup>®</sup> Elastomeric Roofing Membrane, Topcoat<sup>®</sup> MB Plus (to be used as a primer with Topcoat<sup>®</sup> Elastomeric Roofing Membrane) or Topcoat<sup>®</sup> Surface Seal SB applied at 1 to 1.5 gal./sq.

Maximum Design

Pressure: -120 psf. (See General Limitation # 7)



NOA No.: 15-0129.20 Expiration Date: 11/06/15 Approval Date: 04/16/15 Page 28 of 43 Membrane Type: APP & SBS Heat-Weld

Deck Type 3I: Concrete Decks, Insulated

**Deck Description:** 2500 psi structural concrete or concrete plank

System Type D(1): All insulations are loose laid with preliminary attachment to roof deck. Base

sheet is subsequently mechanically fastened through insulation to the roof deck.

Vapor Retarder: (Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4, GAFGLAS®

FlexPly<sup>™</sup> 6, GAFGLAS<sup>®</sup> #75 Base Sheet, Tri-Ply<sup>®</sup> #75 Base Sheet, GAFGLAS<sup>®</sup> Ultima<sup>™</sup> #80 Base Sheet or Ruberoid<sup>®</sup> 20 adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix<sup>™</sup> 307

Premium Asphalt Primer.

All General and System Limitations shall apply.

Insulation Layer (Table 3) Fastener (Table 3) Density/ft²

EnergyGuard™ Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation,

EnergyGuard™ Composite Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation,

EnergyGuard™ RN Polyiso Insulation

Minimum 1.3" thick N/A N/A

Structodek® High Density Fiber Board Roof Insulation

Minimum 1" thick N/A N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See base sheet below for fasteners and density. Please refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. All insulation shall be adhered to the deck in two ¾" beads of Olybond®, Olybond 500® or Olybond 500® Green adhesive space at 12" o.c.

Base Sheet: Install one ply of GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet,

GAFGLAS® #80 Ultima™ Base Sheet, GAFGLAS® Ply 4, Tri-Ply® Ply 4, GAFGLAS FlexPly™ 6, GAFGLAS® Stratavent® Eliminator™ Nailable Venting Base Sheet or Ruberoid® 20. Fastened to the deck through the insulation with Drill-Tec™ #14 Fastener, Drill-Tec™ 3" Steel Plate or Drill-Tec™ AccuTrac® Flat Plate in a 2" side laps 12" on center. Three rows are equally spaced approximately

9" o.c. in the field of the sheet spaced 12 o.c. along the length of the sheet.

Ply Sheet: (Note: required if used with Ruberoid® 20 or GAFGLAS® Stratavent

(Optional) Eliminator<sup>™</sup> Perforated Venting Base Sheet) One or more plies of GAFGLAS<sup>®</sup>

Ply 4, Tri-Ply<sup>®</sup> Ply 4, GAFGLAS<sup>®</sup> FlexPly<sup>™</sup> 6 or GAFGLAS<sup>®</sup> #80 Ultima<sup>™</sup> Base Sheet adhere with any approved mopping asphalt applied within the EVT range

and at a rate of 20-40 lbs./sq.



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Membrane:

One or more plies of Ruberoid® Torch Smooth, Tri-Ply® TP-4, Ruberoid® Torch Granule, Ruberoid® Torch 180, Tri-Ply® TP-4G, Ruberoid® Torch FR, Ruberoid® EnergyCap<sup>™</sup> Torch Granule FR or Ruberoid<sup>®</sup> EnergyCap<sup>™</sup> Torch Plus FR. applied in accordance to manufacturer's instructions.

Or

One or more plies of Ruberoid® SBS Heat-Weld™ 25, Ruberoid® SBS Heat-Weld™ Smooth, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> Granule, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> 170 FR, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> Plus, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> Plus FR or Ruberoid<sup>®</sup> EnergyCap<sup>™</sup> SBS Heat-Weld<sup>™</sup> Plus FR applied in accordance with manufacturer's instructions.

Surfacing:

Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

- 1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.
- GAFGLAS® Mineral Surfaced Cap Sheet, Tri-Ply® Mineral Surfaced Cap Sheet or 2. GAFGLAS<sup>®</sup> EnergyCap<sup>™</sup> BUR Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- Topcoat<sup>®</sup> Elastomeric Roofing Membrane, Topcoat<sup>®</sup> MB Plus (to be used as a primer with 3. Topcoat<sup>®</sup> Elastomeric Roofing Membrane) or Topcoat<sup>®</sup> Surface Seal SB applied at 1 to 1.5 gal./sq.

Maximum Design

Pressure: -60 psf. (See General Limitation #7)



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**Membrane Type:** SBS

**Deck Type 3I:** Concrete Decks, Insulated

**Deck Description:** 2500 psi structural concrete or concrete plank

**System Type D(2):** All insulations are loose laid with preliminary attachment to roof deck. Base

sheet is subsequently mechanically fastened through insulation to the roof deck.

Vapor Retarder: (Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4, GAFGLAS®

FlexPly<sup>™</sup> 6, GAFGLAS<sup>®</sup> #75 Base Sheet, Tri-Ply<sup>®</sup> #75 Base Sheet, GAFGLAS<sup>®</sup> Ultima<sup>™</sup> #80 Base Sheet or Ruberoid<sup>®</sup> 20 adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix<sup>™</sup> 307

Premium Asphalt Primer.

All General and System Limitations shall apply.

Insulation Layer Insulation Fasteners Fastener (Table 3) Pensity/ft²

EnergyGuard<sup>™</sup> Polyiso Insulation, EnergyGuard<sup>™</sup> RH Polyiso Insulation,

EnergyGuard<sup>™</sup> Composite Polyiso Insulation, EnergyGuard<sup>™</sup> RA Polyiso Insulation,

EnergyGuard™ RN Polyiso Insulation

Minimum 1.3" thick N/A N/A

Structodek® High Density Fiber Board Roof Insulation

Minimum 1" thick N/A N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See base sheet below for fasteners and density. Please refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. All insulation shall be adhered to the deck in two 3/4" beads of Olybond®, Olybond 500® or Olybond 500® Green adhesive space at 12" o.c.

Base Sheet: Install one ply of GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet,

GAFGLAS® #80 Ultima™ Base Sheet, GAFGLAS® Ply 4, Tri-Ply® Ply 4, GAFGLAS® FlexPly™ 6, GAFGLAS® Stratavent® Eliminator™ Nailable Venting Base Sheet or Ruberoid® 20. Fastened to the deck through the insulation with Drill-Tec™ #14 Fastener and Drill-Tec™ 3" Steel Plate, Drill-Tec™ AccuTrac® Flat Plate in a 2" side laps 12" on center. Three rows are equally spaced approximately 9" o.c. in the field of the sheet spaced 12 o.c. along the length of

the sheet.

Ply Sheet: One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4, GAFGLAS® FlexPly™ 6

(Optional) or GAFGLAS® #80 Ultima™ Base Sheets. Adhere with any approved mopping

asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One or more plies ply of Ruberoid<sup>®</sup> 20, Ruberoid<sup>®</sup> 30, Ruberoid<sup>®</sup> 30 FR, Ruberoid<sup>®</sup>

Mop Granule, Tri-Ply® SBS Modified Bitumen Membrane, Intec Flex PRF, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® Mop Plus, Ruberoid® Mop FR, Ruberoid® EnergyCap™ Mop FR, Ruberoid® Mop 170FR or Ruberoid® EnergyCap™ 30 FR SBS Membrane adhere with any approved mopping asphalt applied within the EVT range and at a

rate of 20-40 lbs./sq.



NOA No.: 15-0129.20 Expiration Date: 11/06/15 Approval Date: 04/16/15 Page 31 of 43 Surfacing: Optional on granular surfaced membranes; required for smooth

membranes. Chosen components must be applied according to

manufacturer's application instructions. All coatings must be listed within a

current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.

- 2. GAFGLAS<sup>®</sup> Mineral Surfaced Cap Sheet, Tri-Ply<sup>®</sup> Mineral Surfaced Cap Sheet or GAFGLAS<sup>®</sup> EnergyCap<sup>™</sup> BUR Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- 3. Topcoat<sup>®</sup> Elastomeric Roofing Membrane, Topcoat<sup>®</sup> MB Plus (to be used as a primer with Topcoat<sup>®</sup> Elastomeric Roofing Membrane) or Topcoat<sup>®</sup> Surface Seal SB applied at 1 to 1.5 gal./sq.

Maximum Design

Pressure: -60 psf. (See General Limitation #7)



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Membrane Type: APP & SBS Heat-Weld

Deck Type 3I: Concrete Decks, Insulated

**Deck Description:** 2500 psi structural concrete or concrete plank

System Type D(3): All insulations are loose laid with preliminary attachment to roof deck. Base sheet

is subsequently mechanically fastened through insulation to the roof deck.

**Vapor Retarder:** (Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4, GAFGLAS®

FlexPly<sup>™</sup> 6, GAFGLAS<sup>®</sup> #75 Base Sheet, Tri-Ply<sup>®</sup> #75 Base Sheet, GAFGLAS<sup>®</sup> Ultima<sup>™</sup> #80 Base Sheet or Ruberoid<sup>®</sup> 20 adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix<sup>™</sup> 307 Premium

Asphalt Primer.

All General and System Limitations shall apply.

Insulation Layer Insulation Fasteners (Table 3) Density/ft²

EnergyGuard™ Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation,

EnergyGuard™ Composite Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation,

EnergyGuard™ RN Polyiso Insulation

Minimum 1.3" thick N/A N/A

Structodek® High Density Fiber Board Roof Insulation

Minimum 1" thick N/A N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See base sheet below for fasteners and density. Please refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. All insulation shall be adhered to the deck in two 3/4" beads of Olybond®, Olybond 500® Green adhesive space at 12" o.c.

Base Sheet: Install one ply of Ruberoid® SBS Heat-Weld™ Smooth. Fastened to the deck

through the insulation with Drill-Tec<sup>TM</sup> #14 Fastener and Drill-Tec<sup>TM</sup> 2 in. Barbed

Steel Plate in a 4" side laps 6" on center. Lap is torch sealed according to

manufacturer's instructions.

Ply Sheet: One or more plies of Ruberoid<sup>®</sup> Heat-Weld<sup>™</sup> Smooth torch applied or Ruberoid<sup>®</sup> (Optional) Mop Smooth or Ruberoid<sup>®</sup> Mop Smooth 1.5 adhere with any approved mopping

asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One or more plies of Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> 25, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup>

Smooth, Ruberoid® SBS Heat-Weld™ Granule, Ruberoid® SBS Heat-Weld™ 170 FR, Ruberoid® SBS Heat-Weld™ Plus, Ruberoid® SBS Heat-Weld™ Plus FR or Ruberoid® EnergyCap™ SBS Heat-Weld™ Plus FR applied in accordance with

manufacturer's instructions.



NOA No.: 15-0129.20 Expiration Date: 11/06/15 Approval Date: 04/16/15 Page 33 of 43 Surfacing: Optional on granular surfaced membranes; required for smooth membranes. Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.

- 2. GAFGLAS<sup>®</sup> Mineral Surfaced Cap Sheet, Tri-Ply<sup>®</sup> Mineral Surfaced Cap Sheet or GAFGLAS<sup>®</sup> EnergyCap<sup>™</sup> BUR Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- 3. Topcoat<sup>®</sup> Elastomeric Roofing Membrane, Topcoat<sup>®</sup> MB Plus (to be used as a primer with Topcoat<sup>®</sup> Elastomeric Roofing Membrane) or Topcoat<sup>®</sup> Surface Seal SB applied at 1 to 1.5 gal./sq.

Maximum Design

Pressure: -82.5 psf. (See General Limitation #7)



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Membrane Type: SBS Heat-Weld

**Deck Type 3I:** 2500 psi Structural Concrete over Form Steel Deck, Insulated

**Deck Description:** Minimum 22 ga. [0.0295 in. thick], type B, wide rib steel deck, grade 33 was

secured to 0.25 in (6.4 mm) thick structural supports spaced at 72 in o.c. using Traxx/5 screws spaced at 6 in o.c. and with side laps secured with Traxx/1 screws

spaced at 24 in. o.c.

**System Type D(4):** Insulation is loose laid; preliminary attached to deck.

Vapor Retarder: (Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4, GAFGLAS®

FlexPly<sup>™</sup> 6, GAFGLAS<sup>®</sup> #75 Base Sheet, Tri-Ply<sup>®</sup> #75 Base Sheet, GAFGLAS<sup>®</sup> Ultima<sup>™</sup> #80 Base Sheet or Ruberoid<sup>®</sup> 20 adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix<sup>™</sup> 307 Premium

Asphalt Primer.

All General and System limitations apply.

One or more layers of the following insulations.

Insulation Layer Insulation Fasteners Fastener (Table 3) Fastener

EnergyGuard<sup>™</sup> Polyiso Insulation, EnergyGuard<sup>™</sup> RA Polyiso Insulation, EnergyGuard<sup>™</sup> RH Polyiso Insulation, EnergyGuard<sup>™</sup> RN Polyiso Insulation

Minimum 1½" thick N/A N/A

Note: Insulation shall have preliminary attachment, prior to the installation of the base sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation, optional vapor barrier (when present) and base sheet shall be simultaneously fastened. See base sheet below for fasteners and density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Ply: One of the following Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5,

Ruberoid® Mop Plus Smooth fastened to the deck with Drill-Tec™AccuTrac® Flat Plates and Drill-Tec™ 3" Standard Steel Plates with Drill-Tec™ #14 Fasteners spaced

6.0 in o.c. through the minimum 3.25 in wide side laps.

Membrane: One or more plies of Ruberoid® SBS Heat-Weld™ Smooth, Ruberoid® SBS Heat-

Weld<sup>™</sup> Granule, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> 170 FR, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> Plus, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> Plus FR or Ruberoid<sup>®</sup> EnergyCap<sup>™</sup> SBS Heat-Weld<sup>™</sup> Plus FR torched adhered with minimum 3 in wide laps in accordance to

manufacturer's instructions.

Surfacing: Optional on granular surfaced membranes; required for smooth membranes.

Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.

2. GAFGLAS<sup>®</sup> Mineral Surfaced Cap Sheet, Tri-Ply<sup>®</sup> Mineral Surfaced Cap Sheet or GAFGLAS<sup>®</sup> EnergyCap<sup>™</sup> BUR Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

3. Topcoat<sup>®</sup> Elastomeric Roofing Membrane, Topcoat<sup>®</sup> MB Plus (to be used as a primer with Topcoat<sup>®</sup> Elastomeric Roofing Membrane) or Topcoat<sup>®</sup> Surface Seal SB applied at 1 to 1.5 gal./sq.

Maximum Design

Pressure: -112.5 (See General Limitation # 7)



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**Deck Type 3:** Concrete Decks, Non-Insulated

**Deck Description:** 2500 psi structural concrete or concrete plank

**System Type F(1):** Base sheet adhered with approved asphalt.

**Vapor Retarder:** (Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4, GAFGLAS®

FlexPly<sup>™</sup> 6, GAFGLAS<sup>®</sup> #75 Base Sheet, Tri-Ply<sup>®</sup> #75 Base Sheet, GAFGLAS<sup>®</sup> Ultima<sup>™</sup> #80 Base Sheet or Ruberoid<sup>®</sup> 20 adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix<sup>™</sup> 307

Premium Asphalt Primer.

All General and System Limitations shall apply.

Base Sheet: Install one ply of GAFGLAS<sup>®</sup> Ply 4, Tri-Ply<sup>®</sup> Ply 4, GAFGLAS<sup>®</sup> FlexPly<sup>™</sup> 6,

(Optional) Ruberoid® 20, GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet or

GAFGLAS® #80 Ultima<sup>™</sup> Base Sheet directly to primed deck. Adhere with any approved mopping asphalt applied within the EVT range and at a rate of 20-40

lbs./sq.

Ply Sheet: (Note: required with Ruberoid® 20 base sheet) One or more plies of

(Optional) GAFGLAS® Ply 4, Tri-Ply® Ply 4, GAFGLAS® FlexPly™ 6 or GAFGLAS® #80

Ultima<sup>™</sup> Base Sheet. Adhere with any approved mopping asphalt applied within

the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One or more plies of Ruberoid® Torch Smooth, Tri-Ply® TP-4, Ruberoid® Torch

Granule, Ruberoid<sup>®</sup> Torch 180, Tri-Ply<sup>®</sup> TP-4G, Ruberoid<sup>®</sup> Torch FR, Ruberoid<sup>®</sup> EnergyCap<sup>™</sup> Torch Granule FR or Ruberoid<sup>®</sup> EnergyCap<sup>™</sup> Torch Plus FR. applied

in accordance with manufacturer's instructions.

Surfacing: Optional on granular surfaced membranes; required for smooth membranes.

Chosen components must be applied according to manufacturer's application

instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of

approved asphalt at 60 lbs./sq.

2. GAFGLAS® Mineral Surfaced Cap Sheet, Tri-Ply® Mineral Surfaced Cap Sheet or

GAFGLAS® EnergyCap™ BUR Mineral Surfaced Cap Sheet adhered in a full mopping of

approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

3. Topcoat® Elastomeric Roofing Membrane, Topcoat® MB Plus (to be used as a primer with

Topcoat® Elastomeric Roofing Membrane) or Topcoat® Surface Seal SB applied at 1 to 1.5

gal./sq.

Maximum Design

Pressure: -236 psf. (See General Limitation #9)



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Deck Type 3: Concrete Decks, Non-Insulated

2500 psi structural concrete or concrete plank **Deck Description:** 

**System Type F(2):** Base sheet adhered with approved asphalt.

All General and System Limitations shall apply.

One ply of GAFGLAS® Tri-Ply® #75 Base Sheet, Base Sheet, GAFGLAS® #80 Base Sheet:

Ultima<sup>™</sup> Base Sheet, GAFGLAS<sup>®</sup> Ply 4, Tri-Ply<sup>®</sup> Ply 4, GAFGLAS<sup>®</sup> FlexPly<sup>™</sup> 6 or Ruberoid® 20 to deck primed with ASTM D-41 Asphalt Primer or Matrix<sup>™</sup> 307 Premium Asphalt Primer. Adhere base sheet with any approved mopping asphalt

applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Note: required if used with Ruberoid® 20) One or more plies of GAFGLAS® (Optional)

Ply 4, Tri-Ply® Ply 4, GAFGLAS® FlexPly™ 6 adhere with any approved mopping

asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

One or more plies of Ruberoid® Torch Smooth, Tri-Ply® TP-4, Ruberoid® Torch Membrane:

> Granule, Ruberoid® Torch 180, Tri-Ply® TP-4G, Ruberoid® Torch FR, Ruberoid® EnergyCap<sup>™</sup> Torch Granule FR or Ruberoid<sup>®</sup> EnergyCap<sup>™</sup> Torch Plus FR. applied

in accordance with manufacturer's instructions.

Surfacing: Optional on granular surfaced membranes; required for smooth membranes.

Chosen components must be applied according to manufacturer's application

instructions. All coatings must be listed within a current NOA.

1 Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of

approved asphalt at 60 lbs./sq.

2. GAFGLAS® Mineral Surfaced Cap Sheet, Tri-Ply® Mineral Surfaced Cap Sheet or GAFGLAS<sup>®</sup> EnergyCap<sup>™</sup> BUR Mineral Surfaced Cap Sheet adhered in a full mopping of

approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Topcoat® Elastomeric Roofing Membrane, Topcoat® MB Plus (to be used as a primer with 3. Topcoat® Elastomeric Roofing Membrane) or Topcoat® Surface Seal SB applied at 1 to 1.5

gal./sq.

Maximum Design

-457.5 psf. (See General Limitation #9) Pressure:



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**SBS Membrane Type:** 

Deck Type 3: Concrete Decks, Non-Insulated

**Deck Description:** 2500 psi structural concrete or concrete plank

Base sheet adhered with approved asphalt. **System Type F(3):** 

Vapor Retarder: (Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4, GAFGLAS®

FlexPly<sup>™</sup> 6, GAFGLAS<sup>®</sup> #75 Base Sheet, Tri-Ply<sup>®</sup> #75 Base Sheet, GAFGLAS<sup>®</sup> Ultima<sup>™</sup> #80 Base Sheet or Ruberoid<sup>®</sup> 20 adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix<sup>™</sup> 307

Premium Asphalt Primer.

All General and System Limitations shall apply.

Base Sheet: Install one ply of GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet,

> GAFGLAS® #80 Ultima<sup>™</sup> Base Sheet, GAFGLAS® Ply 4, Tri-Ply® Ply 4, GAFGLAS® FlexPly 6 or Ruberoid® 20 directly to decked primed ASTM D-41 Asphalt Primer or Matrix<sup>™</sup> 307 Premium. Base sheet is adhered with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4, GAFGLAS® FlexPly 6 or (Optional)

GAFGLAS<sup>®</sup> #80 Ultima<sup>™</sup> Base Sheet. Adhere with any approved mopping asphalt

applied within the EVT range and at a rate of 20-40 lbs./sq.

One or more plies ply of Ruberoid<sup>®</sup> 20, Ruberoid<sup>®</sup> 30, Ruberoid<sup>®</sup> 30 FR, Membrane:

> Ruberoid® Mop Granule, Tri-Ply® SBS Modified Bitumen Membrane, Intec Flex PRF, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® Mop Plus, Ruberoid® Mop FR, Ruberoid® EnergyCap™ Mop FR, Ruberoid® Mop 170FR or Ruberoid® EnergyCap™ 30 FR SBS Membrane adhere with any approved mopping asphalt applied within the EVT range and at a

rate of 20-40 lbs./sq.

Surfacing: Optional on granular surfaced membranes; required for smooth membranes.

Chosen components must be applied according to manufacturer's application instructions. All coatings must be listed within a current NOA.

Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of 1. approved asphalt at 60 lbs./sq.

2. GAFGLAS® Mineral Surfaced Cap Sheet, Tri-Ply® Mineral Surfaced Cap Sheet or GAFGLAS<sup>®</sup> EnergyCap<sup>™</sup> BUR Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Topcoat® Elastomeric Roofing Membrane, Topcoat® MB Plus (to be used as a primer with 3. Topcoat® Elastomeric Roofing Membrane) or Topcoat® Surface Seal SB applied at 1 to 1.5 gal./sq.

Maximum Design

Pressure: -442.5 psf. (See General Limitation #9)



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**SBS Membrane Type:** 

Concrete Decks, Non-Insulated Deck Type 3:

**Deck Description:** 2500 psi structural concrete or concrete plank

**System Type F(4):** Base sheet adhered with approved asphalt.

Vapor Retarder: (Optional) One or more plies of GAFGLAS® Ply 4, Tri-Ply® Ply 4, GAFGLAS®

FlexPly<sup>™</sup> 6, GAFGLAS<sup>®</sup> #75 Base Sheet, Tri-Ply<sup>®</sup> #75 Base Sheet, GAFGLAS<sup>®</sup> Ultima<sup>™</sup> #80 Base Sheet or Ruberoid<sup>®</sup> 20 adhered with hot asphalt applied at 20-25 lbs./sq. to deck primed with ASTM D-41 Asphalt Primer or Matrix<sup>™</sup> 307

Premium Asphalt Primer.

All General and System Limitations shall apply.

Base Sheet: Install one ply of GAFGLAS® #75 Base Sheet, Tri-Ply® #75 Base Sheet,

GAFGLAS® #80 Ultima™ Base Sheet, GAFGLAS® Ply 4, Tri-Ply® Ply 4,

GAFGLAS® FlexPly<sup>™</sup> 6, Ruberoid® Mop Smooth or Ruberoid® 20 directly to deck primed with ASTM D-41 Asphalt Primer or Matrix<sup>™</sup> 307 Premium. Base sheet is adhered with Matrix<sup>™</sup> 102 SBS Membrane Adhesive at an application rate of 1-2

gal./sq.

One or more plies of Ruberoid<sup>®</sup> 30, Ruberoid<sup>®</sup> 30 FR, Ruberoid<sup>®</sup> Mop Granule, Membrane:

> Tri-Ply® SBS Modified Bitumen Membrane, Intec Flex PRF, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® Mop Plus, Ruberoid® Mop FR, Ruberoid® EnergyCap™ Mop FR, Ruberoid® Mop 170FR or Ruberoid® EnergyCap<sup>™</sup> 30 FR SBS Membrane adhered with Matrix<sup>™</sup>

102 SBS Membrane Adhesive at an application rate of 1-2 gal./sq.

Surfacing: Optional on granular surfaced membranes; required for smooth membranes.

Chosen components must be applied according to manufacturer's application

instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of

approved asphalt at 60 lbs./sq.

GAFGLAS® Mineral Surfaced Cap Sheet, Tri-Ply® Mineral Surfaced Cap Sheet or 2. GAFGLAS<sup>®</sup> EnergyCap<sup>™</sup> BUR Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

3. Topcoat® Elastomeric Roofing Membrane, Topcoat® MB Plus (to be used as a primer with Topcoat® Elastomeric Roofing Membrane) or Topcoat® Surface Seal SB applied at 1 to 1.5 gal./sq.

Maximum Design

-307.5 psf. (See General Limitation #9) Pressure:



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**Membrane Type:** SBS

**Deck Type 3:** Concrete Decks, Non-Insulated

**Deck Description:** 2500 psi structural concrete or concrete plank

**System Type F(5):** Membrane fully adhered with approved asphalt.

All General and System Limitations shall apply.

Base Sheet: GAFGLAS® Stratavent® Eliminator™ Perforated Venting Base Sheet, loose laid

dry over deck primed with ASTM D-41 Asphalt Primer or Matrix<sup>™</sup> 307 Premium

Asphalt Primer.

Ply Sheet: One or more plies of Ruberoid® 20, GAFGLAS® #80 Ultima™ Base Sheet, (Optional) GAFGLAS® Ply 4, Tri-Ply® Ply 4 or GAFGLAS® FlexPly™ 6 adhered in a full

mopping of approved asphalt applied within the EVT range and at a rate of 20-40

lbs./sq.

Membrane: One or more plies of Ruberoid® 20, Ruberoid® 30, Ruberoid® 30 FR, Ruberoid®

Tri-Ply® SBS Modified Bitumen Membrane, Intec Flex PRF, Ruberoid® Mop Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Plus Smooth, Ruberoid® Mop Plus, Ruberoid® Mop FR, Ruberoid® EnergyCap™ Mop FR, Ruberoid® Mop 170FR or Ruberoid® EnergyCap™ 30 FR SBS Membrane adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: Optional on granular surfaced membranes; required for smooth membranes.

Chosen components must be applied according to manufacturer's application

instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.

approved asphalt at 60 lbs./sq.

2. GAFGLAS<sup>®</sup> Mineral Surfaced Cap Sheet, Tri-Ply<sup>®</sup> Mineral Surfaced Cap Sheet or GAFGLAS<sup>®</sup> EnergyCap<sup>™</sup> BUR Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

3. Topcoat® Elastomeric Roofing Membrane, Topcoat® MB Plus (to be used as a primer with Topcoat® Elastomeric Roofing Membrane) or Topcoat® Surface Seal SB applied at 1 to 1.5

gal./sq.

Maximum Design

Pressure: -195 psf. (See General Limitation #9)



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**Membrane Type:** APP & SBS Heat-Weld

**Deck Type 3:** Concrete Decks, Non-Insulated

**Deck Description:** 2500 psi structural concrete or concrete plank

**System Type F(6):** Membrane fully adhered with approved asphalt.

All General and System Limitations shall apply.

Base Sheet: GAFGLAS® Stratavent® Eliminator™ Perforated Venting Base Sheet, loose laid

dry over deck primed with ASTM D-41 Asphalt Primer or Matrix<sup>™</sup> 307 Premium

Asphalt Primer.

Ply Sheet: One or more plies of Ruberoid® 20, GAFGLAS® #80 Ultima™ Base Sheets,

GAFGLAS® #75 Base Sheet or Tri-Ply® #75 Base Sheet, adhered in a full

mopping of approved asphalt applied within the EVT range and at a rate of 20-40

lbs./sq.

Membrane: One or more plies of Ruberoid® Torch Smooth, Tri-Ply® TP-4, Ruberoid® Torch

Granule, Ruberoid<sup>®</sup> Torch 180, Tri-Ply<sup>®</sup> TP-4G, Ruberoid<sup>®</sup> Torch FR, Ruberoid<sup>®</sup> EnergyCap<sup>™</sup> Torch Granule FR or Ruberoid<sup>®</sup> EnergyCap<sup>™</sup> Torch Plus FR. applied

in accordance with manufacturer's instructions.

OR

Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> 25, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> Smooth, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> Granule, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> 170 FR, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> Plus, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> Plus FR or Ruberoid<sup>®</sup> EnergyCap<sup>™</sup> SBS Heat-Weld<sup>™</sup> Plus FR applied in accordance with manufacturer's instructions.

Surfacing: Optional on granular surfaced membranes; required for smooth membranes.

Chosen components must be applied according to manufacturer's application

instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of

approved asphalt at 60 lbs./sq.

2. GAFGLAS<sup>®</sup> Mineral Surfaced Cap Sheet, Tri-Ply<sup>®</sup> Mineral Surfaced Cap Sheet or GAFGLAS<sup>®</sup> EnergyCap<sup>™</sup> BUR Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

3. Topcoat<sup>®</sup> Elastomeric Roofing Membrane, Topcoat<sup>®</sup> MB Plus (to be used as a primer with Topcoat<sup>®</sup> Elastomeric Roofing Membrane) or Topcoat<sup>®</sup> Surface Seal SB applied at 1 to 1.5

gal./sq.

Maximum Design

Pressure: -195 psf. (See General Limitation #9)



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APP & SBS Heat-Weld **Membrane Type:** 

Deck Type 3: Concrete Decks, Non-Insulated

**Deck Description:** 2500 psi structural concrete or concrete plank

Membrane fully adhered with approved asphalt. System Type F(7):

All General and System Limitations shall apply.

Base Sheet: One ply of Ruberoid® SBS Heat-Weld™ Smooth torched adhered to deck primed with

ASTM D-41 Asphalt Primer or Matrix<sup>™</sup> 307 Premium Asphalt Primer.

One or more plies of Ruberoid® SBS Heat-Weld™ Smooth or Ruberoid® SBS Heat-Ply Sheet: (Optional)

Weld<sup>™</sup> 25 adhered in a full mopping of approved asphalt applied within the EVT

range and at a rate of 20-40 lbs./sq.

One or more plies ply of Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> 25, Ruberoid<sup>®</sup> SBS Heat-Membrane:

> Weld<sup>™</sup> Smooth, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> Granule, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> 170 FR, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup> Plus, Ruberoid<sup>®</sup> SBS Heat-Weld<sup>™</sup>

Plus FR or Ruberoid<sup>®</sup> EnergyCap<sup>™</sup> SBS Heat-Weld<sup>™</sup> Plus FR applied in

accordance with manufacturer's instructions.

Surfacing: Optional on granular surfaced membranes; required for smooth membranes.

Chosen components must be applied according to manufacturer's application

instructions. All coatings must be listed within a current NOA.

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq.

GAFGLAS® Mineral Surfaced Cap Sheet, Tri-Ply® Mineral Surfaced Cap Sheet or 2. GAFGLAS<sup>®</sup> EnergyCap<sup>™</sup> BUR Mineral Surfaced Cap Sheet adhered in a full mopping of

approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

3. Topcoat® Elastomeric Roofing Membrane, Topcoat® MB Plus (to be used as a primer with Topcoat<sup>®</sup> Elastomeric Roofing Membrane) or Topcoat<sup>®</sup> Surface Seal SB applied at 1 to 1.5 gal./sq.

Maximum Design

Pressure: -495 psf. (See General Limitation #9)



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#### **CONCRETE DECK SYSTEM LIMITATIONS:**

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine equivalent or enhanced fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117; calculations shall be signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant.

#### **GENERAL LIMITATIONS:**

- 1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
- 2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
- 3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
- 4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.
  - Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.
- 5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
- 6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
- 7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117 and/or RAS 137. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant (When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)
- 8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
- 9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). (When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)
- 10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

### **END OF THIS ACCEPTANCE**

MIAMI-DADE COUNTY
APPROVED

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